

TSD File Inventory Index

Date: December 9, 2008

Initial: CMK/nc

Facility Name: <u>Leno Corporation (Technical Center - One Felder, Suite)</u>			
Facility Identification Number:			
A.1 General Correspondence	Y	B.2 Permit Docket (B.1.2)	
A.2 Part A / Interim Status	Y	.1 Correspondence	Y
.1 Correspondence	X	.2 All Other Permitting Documents (Not Part of the ARA)	Y
.2 Notification and Acknowledgment	Y	C.1 Compliance - (Inspection Reports)	Y
.3 Part A Application and Amendments	Y	C.2 Compliance/Enforcement	Y
.4 Financial Insurance (Sudden, Non Sudden)	Y	.1 Land Disposal Restriction Notifications	Y
.5 Change Under Interim Status Requests		.2 Import/Export Notifications	
.6 Annual and Biennial Reports		C.3 FOIA Exemptions - Non-Releasable Documents	
A.3 Groundwater Monitoring		D.1 Corrective Action/Facility Assessment	Y
.1 Correspondence		.1 RFA Correspondence	
.2 Reports		.2 Background Reports, Supporting Docs and Studies	
A.4 Closure/Post Closure	Y	.3 State Prelim. Investigation Memos	
.1 Correspondence	Y	.4 RFA Reports	Y
.2 Closure/Post Closure Plans, Certificates, etc	Y	D. 2 Corrective Action/Facility Investigation	
A.5 Ambient Air Monitoring		.1 RFI Correspondence	
.1 Correspondence		.2 RFI Workplan	
.2 Reports		.3 RFI Program Reports and Oversight	
B.1 Administrative Record		.4 RFI Draft /Final Report	
		5. RFI QAPP	

Teep - 1

.6 RFI QAPP Correspondence		.8 Progress Reports	
.7 Lab Data, Soil-Sampling/Groundwater		D.5 Corrective Action/Enforcement	
.8 RFI Progress Reports		.1 Administrative Record 3008(h) Order	
.9 Interim Measures Correspondence		.2 Other Non-AR Documents	
.10 Interim Measures Workplan and Reports		D.6 Environmental Indicator Determinations	
D.3 Corrective Action/Remediation Study		.1 Forms/Checklists	
.1 CMS Correspondence		E. Boilers and Industrial Furnaces (BIF)	
.2 Interim Measures		.1 Correspondence	
.3 CMS Workplan		.2 Reports	
.4 CMS Draft/Final Report		F Imagery/Special Studies (Videos, photos, disks, maps, blueprints, drawings, and other special materials.)	
.5 Stabilization		G.1 Risk Assessment	
.6 CMS Progress Reports		.1 Human/Ecological Assessment	
.7 Lab Data, Soil-Sampling/Groundwater		.2 Compliance and Enforcement	
D.4 Corrective Action Remediation Implementation		.3 Enforcement Confidential	
.1 CMI Correspondence		.4 Ecological - Administrative Record	
.2 CMI Workplan		.5 Permitting	
.3 CMI Program Reports and Oversight		.6 Corrective Action Remediation Study	
.4 CMI Draft/Final Reports		.7 Corrective Action/Remediation Implementation	
.5 CMI QAPP		.8 Endangered Species Act	
.6 CMI QAPP Correspondence		.9 Environmental Justice	
1			

Note: Transmittal Letter to Be Included with Reports.

Comments: One folder added

B.1

Re: NPDES Permit No. 31E00020*AD
Ferro Corp., Chemical Division
Walton Hills/Cuyahoga County
Industrial Waste

CERTIFIED MAIL

April 3, 1984

Mr. Michael D. Coker
Manager, Environmental Control
Ferro Corporation
4150 East 56th Street
P.O. Box 6550
Cleveland, Ohio 44101

Dear Mr. Coker:

Thank you for your letter of March 16, 1984, in response to our meeting on February 24, 1984, and my previous letter of March 1, 1984. The meeting and letter concerned the discharge of pollutants not authorized by your NPDES permit.

Your letter states that the most probable sources of these pollutants are the following areas:

- 1) Collected tank farm storm water runoff.
- 2) Boiler blowdown.
- 3) Steam jet quench condensate.

Ferro expects to repipe the above areas into the NEORSD system when it becomes available.

The letter also states that Ferro believes that their NPDES permit authorizes the discharge of the pollutants in question. As pointed out in our March 1, 1984, letter, the permit authorizes the discharge of only "non-contact cooling water, including blowdown water, but free from process and other wastewater discharges" (page 2 of the permit).

Consequently, the discharge of wastes containing oxygen-consuming organic materials, suspended solids, phenolic compounds, phosphorus and heavy metals is clearly prohibited.

While repiping the pollutants to the NEORSD may be the best long-term solution, we cannot overlook continued violations of the permit in the meantime. If the company continues to discharge pollutants in violation of its permit, we will refer the matter to our central office for enforcement action.

Ferro Corp.
April 3, 1984
Page -2-

Therefore, we request that, within ten (10) days of receipt of this letter, Ferro send to this office a letter agreeing to cease the unauthorized discharges immediately. This may be accomplished either by containing all contaminants on site, and/or having them hauled away by a commercial disposal firm.

Interim measures the company may take to prevent discharges of contaminants until NEORSO sewers are available include:

1. Continuing to contain and/or haul away contaminated waters.
2. Ceasing the process or activity that generates the pollutants.
3. Controlling the pollutants at their source so that they do not enter a wastewater stream.
4. Changes in housekeeping or maintenance practices.

If you have questions about this matter, feel free to contact me.

Sincerely,

William J. Miller
Environmental Engineer
Industrial Wastewater Group
Division of Water Pollution Control

WJM:mjo

cc: Lewis Albert, Supt., Cuyahoga Valley National Recreation Area, Peninsula
R. Wysenski, NEDO



CHEMICAL DIVISION

FERRO CORPORATION, CHEMICAL DIVISION, 7050 KRICK ROAD, BEDFORD, OHIO 44143 (216) 841-3550/TELEX: 93-0648

E320 BX
JTB
3/2/82

February 25, 1982

Ohio Environmental Protection Agency
Northeast District Office
2110 E. Aurora Road
Twinsburg, Ohio 44087

Gentlemen:

Enclosed are the additional data you requested for our NPDES permit application OH0002291 for renewal of our permit E-320.

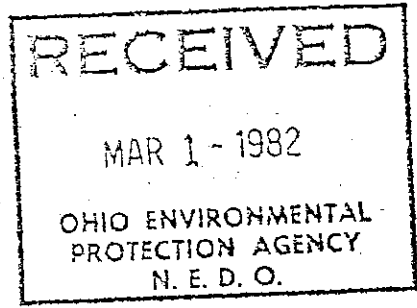
Very truly yours,

CHEMICAL DIVISION
Ferro Corporation

F. L. Wells
Environmental Control Engineer

/mdp

Encl.



VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ YES (identify the test(s) and describe their purposes below)

☐ NO (go to Section VIII)

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☒ YES (list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)

☐ NO (go to Section IX)

A. NAME	B. ADDRESS	C. TELEPHONE (area code & no.)	D. POLLUTANTS ANALYZED (list)
ENVIRONMENTAL RESEARCH GROUP, INC.	7777 EXCHANGE ST. CLEVELAND, OHIO 44125	(216) 447-0790	All Group I-C

IX. CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (type or print)

H.E. CONNERS, GENERAL MANAGER

B. PHONE NO. (area code & no.)

(216) 641-8580 Ex 700

C. SIGNATURE

H.E. Connors

D. DATE SIGNED

2/25/82

E-320 * BX

Form Approved OMB No. 150-R0173

EPA I.D. NUMBER (copy from Item 7 Form 1) OUTFALL NUMBER

OH 000 2291 001

CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, non-process wastewater outfalls, and non-required GC/MS fractions), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe to be absent. If you mark either columns 2-a or 2-b for any pollutant, you must provide the results of at least one analysis for that pollutant. Note that there are seven pages to this part; please review each carefully. Complete one table (all seven pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT			4. UNITS			5. INTAKE (optional)				
	3. TEST NO.	4. RECOVERED PERCENT	5. PRESENT PERCENT	6. MAXIMUM DAILY VALUE (if available)		7. LONG TERM AVERAGE VALUE (if available)		8. CONCENTRATION	9. MASS	10. CONCENTRATION	11. MASS	12. LONG TERM AVERAGE VALUE	13. NO. OF ANALYSES	
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS							
METALS, CYANIDE, AND TOTAL PHENOLS														
1M. Antimony, Total (7440-36-0)	X			<0.05	<0.02					1	mg/L	lbs		
2M. Arsenic, Total (7440-38-2)	X			0.001	0.0003					1	mg/L	lbs		
3M. Beryllium, Total (7440-41-7)	X			ND						1	mg/L			1
4M. Cadmium, Total (7440-43-9)	X			0.11	0.037					1	mg/L	lbs		
5M. Chromium, Total (7440-47-3)	X			<0.005	<0.002					1	mg/L	lbs		
6M. Copper, Total (7550-80-8)	X			0.035	0.012					1	mg/L	lbs		
7M. Lead, Total (7439-97-6)	X			0.090	0.030					1	mg/L	lbs		
8M. Mercury, Total (7439-97-6)	X			0.004	0.001					1	mg/L	lbs		
9M. Nickel, Total (7440-02-0)	X			0.044	0.015					1	mg/L	lbs		
10M. Selenium, Total (7782-49-2)	X			ND						1				
11M. Silver, Total (7440-22-4)	X			ND						1				
12M. Thallium, Total (7440-28-0)	X			ND						1				
13M. Zinc, Total (7440-66-6)	X			0.13	0.044					1	mg/L	lbs		
14M. Cyanide, Total (67-12-6)	X			ND						1				
15M. Phenols, Total	X			0.96	0.32					1	mg/L	lbs		

DIOXIN

2,3,7,8-Tetra-chlorodibenzo-p-Dioxin (1764 01-0)

DESCRIBE RESULTS

Testing NOT REQUIRED

EPA Form 3610-7C (1-80)

ND = Not Detected

PAGE V-3

CONTINUE ON REVERSE

CONTINUED FROM PAGE V-6

1. POLLUTANT AND GAS (if available)	2. MARK 'X'			3. EFFLUENT				4. UNITS		5. INTAKE (optional)		
	UNIT	CONCENTRATION	DATE	a. MAXIMUM DAILY VALUE (1) CONCENTRATION (2) MASS	b. MAXIMUM 30 DAY VALUE (1) CONCENTRATION (2) MASS	c. LONG TERM AVERAGE VALUE (1) CONCENTRATION (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	(1) CONCENTRATION	(2) MASS	d. NO. ANALYSES
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)												
22B. 1,4-Dichlorobenzene (106-46-7)	X			ND			1					
23B. 2,3-Dichlorobenzidine (91-94-1)	X			ND			1					
24B. Diethyl Phthalate (84-66-2)	X			ND			1					
25B. Dimethyl Phthalate (131-11-3)	X			ND			1					
26B. Di-N-Butyl Phthalate (84-74-2)	X			ND			1					
27B. 2,4-Dinitrotoluene (121-14-2)	X			ND			1					
28B. 2,6-Dinitrotoluene (508-20-2)	X			ND			1					
29B. Di-N-Octyl Phthalate (117-34-0)	X			ND			1					
30B. 1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)	X			ND			1					
31B. Fluoranthene (206-44-0)	X			ND			1					
32B. Fluorene (86-73-7)	X			ND			1					
33B. Hexachlorobenzene (118-71-1)	X			ND			1					
34B. Hexachlorobutadiene (87-68-3)	X			ND			1					
35B. Hexachlorocyclopentadiene (77-47-4)	X			ND			1					
36B. Hexachloroethane (67-72-1)	X			ND			1					
37B. Indeno (1,2,3-cd) Pyrene (193-39-5)	X			ND			1					
38B. Isophorone (78-59-1)	X			ND			1					
39B. Naphthalene (91-20-3)	X			0.004	0.001		1	mg/L	lbs			
40B. Nitrobenzene (98-95-3)	X			ND			1					
41B. N-Nitrosodiphenylamine (62-76-9)	X			ND			1					
42B. N-Nitrosodipropylamine (62-13-3)	X			ND			1					

CONTINUED FROM THE FRONT

1. POLLUT AND CAS NUMBER (if available)	2. MARK 'X'	3. EFFECT			4. UNITS			5. TAKE (optional)
		A. MAXIMUM DAILY VALUE	B. MAXIMUM CONC. (if available)	C. LONG TERM CONC. (if available)	D. CONCENTRATION	E. MASS	F. LONG TERM AVERAGE VALUE	
GC/MS FRACTION								
1B. Aconaphthene (83-32-3)	X	ND						
2B. Aconaphthylene (208-96-3)	X	ND						
3B. Anthracene (120-12-7)	X	ND						
4B. Benzidine (92-87-5)	X	ND						
5B. Benzo (a) Anthracene (50-55-3)	X	ND						
6B. Benzo (a) Pyrene (50-32-8)	X	ND						
7B. 3,4-Benzofluoranthene (205-98-2)	X	ND						
8B. Benzo (ghi) Perylene (191-24-2)	X	ND						
9B. Benzo (h) Fluoranthene (207-08-9)	X	ND						
10B. Bis (2-Chloroethoxy) Methane (111-91-1)	X	ND						
11B. Bis (2-Chloroethyl) Ether (111-44-4)	X	ND						
12B. Bis (2-Chloropropyl) Ether (39638-32-3)	X	ND						
13B. Bis (2-Ethylhexyl) Phthalate (117-81-7)	X	ND						
14B. 4-Bromo-phenyl Phenyl Ether (101-65-3)	X	ND						
15B. Butyl Benzyl Phthalate (85-68-7)	X	ND						
16B. 2-Chloronaphthalene (91-58-7)	X	ND						
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	X	ND						
18B. Chrysene (218-01-9)	X	ND						
19B. Dibenzo (a,h) Anthracene (53-70-3)	X	ND						
20B. 1,2-Dichlorobenzene (95-60-1)	X	ND						
21B. 1,3-Dichlorobenzene (541-73-1)	X	ND						



UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION V
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

APR 22 1982

REPLY TO ATTENTION OF:
RCRA ACTIVITIES

David Harrison, Supervisor
Ferro Corporation - Technical Center
7500 East Pleasant Valley Road
Independence, Ohio 44131

RE: Interim Status Acknowledgement USEPA ID No. OHD 000 817 205
FACILITY NAME: FERRO CORPORATION TECHNICAL CENTER

Dear Mr. Harrison:


This is to acknowledge that the U.S. Environmental Protection Agency (USEPA) has completed processing your Part A Hazardous Waste Permit Application. It is the opinion of this office that the information submitted is complete and that you, as an owner or operator of a hazardous waste management facility, have met the requirements of Section 3005(e) of the Resource Conservation and Recovery Act (RCRA) for Interim Status. However, should USEPA obtain information which indicates that your application was incomplete or inaccurate, you may be requested to provide further documentation of your claim for Interim Status. Our opinion will be reevaluated on the basis of this information.

As an owner or operator of a hazardous waste management facility, you are required to comply with the interim status standards as prescribed in 40 CFR Parts 122 and 265, or with State rules and regulations in those States which have been authorized under Section 3006 of RCRA. In addition, you are reminded that operating under interim status does not relieve you from the need to comply with all applicable State and local requirements.

The printout enclosed with this letter identifies the limit(s) of the process design capacities your facility may use during the interim status period. This information was obtained from your Part A Permit application. If you wish to handle new wastes, to change processes, to increase the design capacity of existing processes, or to change ownership or operational control of the facility, you may do so only as provided in 40 CFR Sections 122.22 and 122.23.

As stated in the first paragraph of this letter, you have met the requirements of 40 CFR Part 122.23; your facility may operate under interim status until such time as a permit is issued or denied. This will be preceded by a request from this office or the State (if authorized) for Part B of your application. Please contact Arthur Kawatachi of my staff at (312) 886-7449, if you have any questions concerning this letter or the enclosure.

Sincerely yours,


Karl J. Klepitsch, Jr., Chief
Waste Management Branch

OK
4-20-82

Enclosure

cc: Dr. Roy V. Harrington



**ACKNOWLEDGEMENT OF NOTIFICATION
OF HAZARDOUS WASTE ACTIVITY
(VERIFICATION)**

This is to acknowledge that you have filed a Notification of Hazardous Waste Activity for the installation located at the address shown in the box below to comply with Section 3010 of the Resource Conservation and Recovery Act (RCRA). Your EPA Identification Number for that installation appears in the box below. The EPA Identification Number must be included on all shipping manifests for transporting hazardous wastes; on all Annual Reports that generators of hazardous waste, and owners and operators of hazardous waste treatment, storage and disposal facilities must file with EPA; on all applications for a Federal Hazardous Waste Permit; and other hazardous waste management reports and documents required under Subtitle C of RCRA.

EPA I.D. NUMBER

• OHD000817205 REACKNOWLEDGEMENT

FERRO CORPORATION TECHNICAL CENTER
7500 E PLEASANT VALLEY RD
INDEPENDENCE OH 44131

INSTALLATION ADDRESS

7500 E PLEASANT VALLEY RD
INDEPENDENCE OH 44131

S	W	0	H	D	0	0	0	8	1	7	2	0	5	T/A	C
1	2													13	14

IX. DESCRIPTION OF HAZARDOUS WASTES (continued from front)

A. HAZARDOUS WASTES FROM NON-SPECIFIC SOURCES. Enter the four-digit number from 40 CFR Part 261.31 for each listed hazardous waste from non-specific sources your installation handles. Use additional sheets if necessary.

1 F 0 0 1 23 - 26	2 F 0 0 2 23 - 26	3 F 0 0 3 23 - 26	4 F 0 0 4 23 - 26	5 F 0 0 5 23 - 26	6 23 - 26
7 23 - 26	8 23 - 26	9 23 - 26	10 23 - 26	11 23 - 26	12 23 - 26

B. HAZARDOUS WASTES FROM SPECIFIC SOURCES. Enter the four-digit number from 40 CFR Part 261.32 for each listed hazardous waste from specific industrial sources your installation handles. Use additional sheets if necessary.

13 23 - 26	14 23 - 26	15 23 - 26	16 23 - 26	17 23 - 26	18 23 - 26
19 23 - 26	20 23 - 26	21 23 - 26	22 23 - 26	23 23 - 26	24 23 - 26
25 23 - 26	26 23 - 26	27 23 - 26	28 23 - 26	29 23 - 26	30 23 - 26

C. COMMERCIAL CHEMICAL PRODUCT HAZARDOUS WASTES. Enter the four-digit number from 40 CFR Part 261.33 for each chemical substance your installation handles which may be a hazardous waste. Use additional sheets if necessary.

31 P 0 1 1 23 - 26	32 P 0 1 2 23 - 26	33 P 0 2 2 23 - 26	34 P 0 5 3 23 - 26	35 P 0 6 1 23 - 26	36 P 1 0 0 23 - 26
37 23 - 26	38 23 - 26	39 23 - 26	40 23 - 26	41 23 - 26	42 23 - 26
43 23 - 26	44 23 - 26	45 23 - 26	46 23 - 26	47 23 - 26	48 23 - 26

D. LISTED INFECTIOUS WASTES. Enter the four-digit number from 40 CFR Part 261.34 for each listed hazardous waste from hospitals, veterinary hospitals, medical and research laboratories your installation handles. Use additional sheets if necessary.

49 23 - 26	50 23 - 26	51 23 - 26	52 23 - 26	53 23 - 26	54 23 - 26
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E. CHARACTERISTICS OF NON-LISTED HAZARDOUS WASTES. Mark "X" in the boxes corresponding to the characteristics of non-listed hazardous wastes your installation handles. (See 40 CFR Parts 261.21 - 261.24.)

☐ 1. IGNITABLE
(D001)

☐ 2. CORROSIVE
(D002)

☐ 3. REACTIVE
(D003)

☒ 4. TOXIC
(D000)

X. CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

SIGNATURE

D. HARRISON

NAME & OFFICIAL TITLE (type or print)

SUPERVISOR-FACILITY SERVICES

DATE SIGNED

8-7-80

FORM 1 GENERAL		ENVIRONMENTAL PROTECTION AGENCY GENERAL INFORMATION Consolidated Permits Program (Read the "General Instructions" before starting.)		I. EPA I.D. NUMBER FDHD000817295	
EPA I.D. NUMBER		PLEASE PLACE LABEL IN THIS SPACE		GENERAL INSTRUCTIONS	
III. FACILITY NAME				If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent (the area to the left of the label space lists the information that should appear), please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete items I, III, V, and VI (except VI-B which must be completed regardless). Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.	
V. FACILITY MAILING ADDRESS					
VI. FACILITY LOCATION					

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.

SPECIFIC QUESTIONS	MARK 'X'			SPECIFIC QUESTIONS	MARK 'X'		
	YES	NO	FORM ATTACHED		YES	NO	FORM ATTACHED
A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A)		X		B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)		X	
C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)		X		D. Is this a proposed facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D)		X	
E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3)	X		X	F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)		X	
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X		H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)		X	
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X		J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X	

III. NAME OF FACILITY

1	SKIP	F.E.R.R.O. CORPORATION, TECHNICAL CENTER
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IV. FACILITY CONTACT

A. NAME & TITLE (last, first, & title)		B. PHONE (area code & no.)	
2	HARRISON, DAVID, SUPERVISOR	216	641 8580

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX		B. CITY OR TOWN		C. STATE	D. ZIP CODE
3	7500 E. PLEASANT VALLEY RD.	4	INDEPENDENCE	OH	44131

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER		B. COUNTY NAME		C. CITY OR TOWN		D. STATE	E. ZIP CODE	F. COUNTY CODE (if known)
5	7500 E. PLEASANT VALLEY RD.	6	CUYAHOGA	6	INDEPENDENCE	OH	44131	035

CONTINUED FROM THE FRONT

VII. SIC CODES (4-digit, in order of priority)

A. FIRST										B. SECOND											
C	7	2	8	9	9	(specify) CHEMICALS N.E.C.					C	7	2	8	1	6	(specify) INORGANIC PIGMENTS				
15	16	17	18	19	20						15	16	17	18	19	20					
C. THIRD										D. FOURTH											
C	7	3	2	9	1	(specify) ABRASIVE PRODUCTS					C	7	2	8	6	9	(specify) ORGANIC CHEMICALS				
15	16	17	18	19	20						15	16	17	18	19	20					

VIII. OPERATOR INFORMATION

A. NAME																														B. Is the name listed in Item VIII-A also the owner?																																																							
C	8	F	E	R	R	O	C	O	R	P	O	R	A	T	I	O	N													<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO																																																							
15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other", specify.)																														D. PHONE (area code & no.)																																																							
F = FEDERAL S = STATE P = PRIVATE										M = PUBLIC (other than federal or state) O = OTHER (specify)										P (specify) NA										C A 2 1 6 6 4 1 8 5 8 0																																																							
E. STREET OR P.O. BOX																																																																																					
ONE ERIEVIEW PLAZA																																																																																					
F. CITY OR TOWN																														G. STATE										H. ZIP CODE										IX. INDIAN LAND																																			
B CLEVELAND																														O H										4 4 1 1 4										Is the facility located on Indian lands? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO																																			

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water)										D. PSD (Air Emissions from Proposed Sources)																		
C	9	N	A							C	9	P	A															
15	16	17	18	19	20	21	22	23	24	15	16	17	18	19	20	21	22	23	24									
B. UIC (Underground Injection of Fluids)										E. OTHER (specify)																		
C	9	U	A							C	9	N	A															
15	16	17	18	19	20	21	22	23	24	15	16	17	18	19	20	21	22	23	24									
C. RCRA (Hazardous Wastes)										E. OTHER (specify)																		
C	9	R	I	N	P	R	O	G	R	E	S	S							C	9	N	A						
15	16	17	18	19	20	21	22	23	24	15	16	17	18	19	20	21	22	23	24									

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

F9: A/50

XII. NATURE OF BUSINESS (provide a brief description)

THIS FACILITY PROVIDES THE RESEARCH AND DATA PROCESSING SERVICES FOR THE OTHER DIVISIONS OF FERRO CORPORATION. NO "PRODUCTS" ARE PRODUCED AT THIS LOCATION.

F9: A/51

XIII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (type or print)	B. SIGNATURE	C. DATE SIGNED
Dr. Roy V. Harrington, Vice President Corporate Director of Research	Roy V. Harrington	November 4, 1980

COMMENTS FOR OFFICIAL USE ONLY

C

FORM 3 RCRA		ENVIRONMENTAL PROTECTION AGENCY HAZARDOUS WASTE PERMIT APPLICATION Consolidated Permits Program (This information is required under Section 3005 of RCRA.)		I. EPA I.D. NUMBER F 04 D 00 / B 1 7 2 0 5 3 1	
FOR OFFICIAL USE ONLY				COMMENTS	
APPLICATION APPROVED		DATE RECEIVED (yr. mo. & day)			
23		24		25	
II. FIRST OR REVISED APPLICATION					
Place an "X" in the appropriate box in A or B below (mark one box only) to indicate whether this is the first application you are submitting for your facility or a revised application. If this is your first application and you already know your facility's EPA I.D. Number, or if this is a revised application, enter your facility's EPA I.D. Number in Item I above.					
A. FIRST APPLICATION (place an "X" below and provide the appropriate date)					
<input checked="" type="checkbox"/> 1. EXISTING FACILITY (See instructions for definition of "existing" facility. Complete item below.)					
<input type="checkbox"/> 2. NEW FACILITY (Complete item below.)					
FOR EXISTING FACILITIES, PROVIDE THE DATE (yr. mo., & day) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED (use the boxes to the left)					
C 8 YR. 71 MO. 01 DAY 20					
FOR NEW FACILITIES, PROVIDE THE DATE (yr. mo., & day) OPERATION BEGAN OR IS EXPECTED TO BEGIN					
B. REVISED APPLICATION (place an "X" below and complete Item I above)					
<input type="checkbox"/> 1. FACILITY HAS INTERIM STATUS					
<input type="checkbox"/> 2. FACILITY HAS A RCRA PERMIT					
III. PROCESSES - CODES AND DESIGN CAPACITIES					
A. PROCESS CODE - Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are provided for entering codes. If more lines are needed, enter the code(s) in the space provided. If a process will be used that is not included in the list of codes below, then describe the process (including its design capacity) in the space provided on the form (Item III-C).					
B. PROCESS DESIGN CAPACITY - For each code entered in column A enter the capacity of the process.					
1. AMOUNT - Enter the amount.					
2. UNIT OF MEASURE - For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.					
PROCESS		PRO-CESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY	PROCESS	
Storage:				Treatment:	
CONTAINER (barrel, drum, etc.)		S01	GALLONS OR LITERS	TANK	
TANK		S02	GALLONS OR LITERS	SURFACE IMPOUNDMENT	
WASTE PILE		S03	CUBIC YARDS OR CUBIC METERS	INCINERATOR	
SURFACE IMPOUNDMENT		S04	GALLONS OR LITERS		
Disposal:				OTHER (Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundments or incinerators. Describe the processes in the space provided; Item III-C.)	
INJECTION WELL		D79	GALLONS OR LITERS	T01	
LANDFILL		D80	ACRE-FEET (the volume that would cover one acre to a depth of one foot) OR HECTARE-METER	T02	
LAND APPLICATION		D81	ACRES OR HECTARES	T03	
OCEAN DISPOSAL		D82	GALLONS PER DAY OR LITERS PER DAY	T04	
SURFACE IMPOUNDMENT		D83	GALLONS OR LITERS		
UNIT OF MEASURE		UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE	
GALLONS		G	LITERS PER DAY	V	
LITERS		L	TONS PER HOUR	D	
CUBIC YARDS		Y	METRIC TONS PER HOUR	W	
CUBIC METERS		C	GALLONS PER HOUR	E	
GALLONS PER DAY		U	LITERS PER HOUR	H	
ACRE-FEET		A	HECTARE-METER	F	
ACRES		B	GALLONS PER HOUR OR LITERS PER HOUR	Q	
HECTARES		Q			
EXAMPLE FOR COMPLETING ITEM III (shown in line numbers X-1 and X-2 below): A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.					
C DUP 31					
B. PROCESS DESIGN CAPACITY					
A. PRO-CESS CODE (from list above)		1. AMOUNT (specify)		2. UNIT OF MEASURE (enter code)	
FOR OFFICIAL USE ONLY		FOR OFFICIAL USE ONLY		FOR OFFICIAL USE ONLY	
X-1 S 0 2		200		G	
X-2 T 0 3		20		E	
1 S 0 1		1650		G	
3					
4					

III. PROCESSES (continued)

C. SPACE FOR ADDITIONAL PROCESS CODES OR FOR DESCRIBING OTHER PROCESSES (code "T04"). FOR EACH PROCESS ENTERED HERE INCLUDE DESIGN CAPACITY.

NA

IV. DESCRIPTION OF HAZARDOUS WASTES

A. EPA HAZARDOUS WASTE NUMBER — Enter the four-digit number from 40 CFR, Subpart D for each listed hazardous waste you will handle. If you handle hazardous wastes which are not listed in 40 CFR, Subpart D, enter the four-digit number(s) from 40 CFR, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.

B. ESTIMATED ANNUAL QUANTITY — For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.

C. UNIT OF MEASURE — For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS.....	P	KILOGRAMS.....	K
TONS.....	T	METRIC TONS.....	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES**1. PROCESS CODES:**

For listed hazardous waste: For each listed hazardous waste entered in column A select the code(s) from the list of process codes contained in Item III to indicate how the waste will be stored, treated, and/or disposed of at the facility.

For non-listed hazardous wastes: For each characteristic or toxic contaminant entered in column A, select the code(s) from the list of process codes contained in Item III to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.

Note: Four spaces are provided for entering process codes. If more are needed: (1) Enter the first three as described above; (2) Enter "000" in the extreme right box of Item IV-D(1); and (3) Enter in the space provided on page 4, the line number and the additional code(s).

2. PROCESS DESCRIPTION: If a code is not listed for a process that will be used, describe the process in the space provided on the form.

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER — Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B, C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
2. In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.
3. Repeat step 2 for each other EPA Hazardous Waste Number that can be used to describe the hazardous waste.

EXAMPLE FOR COMPLETING ITEM IV (shown in line numbers X-1, X-2, X-3, and X-4 below) — A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

LINE NO.	A. EPA HAZARDOUS WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES	
				1. PROCESS CODES (enter)	2. PROCESS DESCRIPTION (if a code is not entered in D(1))
X-1	K 0 5 4	900	P	T 0 3 D 8 0	
X-2	D 0 0 2	400	P	T 0 3 D 8 0	
X-3	D 0 0 1	100	P	T 0 3 D 8 0	
X-4	D 0 0 2				included with above

CONTINUE ON REVERSE

IV. DESCRIPTION OF HAZARDOUS WASTE (continued)

E. USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM ITEM D(1) ON PAGE 3.

EPA I.D. NO. (enter from page 1)

9	8	7	6	5	4	3	2	1	0	F

V. FACILITY DRAWING

All existing facilities must include in the space provided on page 5 a scale drawing of the facility (see instructions for more detail). *FG: A/55*

VI. PHOTOGRAPHS

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail). *FG: A/56*

VII. FACILITY GEOGRAPHIC LOCATION

LATITUDE (degrees, minutes, & seconds)

4	1	2	1	3	8	8
69	68	67	66	65	64	63

LONGITUDE (degrees, minutes, & seconds)

0	8	1	3	7	5	4
72	71	70	69	68	67	66

VIII. FACILITY OWNER

☒ A. If the facility owner is also the facility operator as listed in Section VIII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below.

B. If the facility owner is not the facility operator as listed in Section VIII on Form 1, complete the following items:

1. NAME OF FACILITY'S LEGAL OWNER

2. PHONE NO. (area code & no.)

15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	F

3. STREET OR P.O. BOX

4. CITY OR TOWN

5. ST.

6. ZIP CODE

15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	F

IX. OWNER CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (print or type)

Dr. Roy V. Harrington, V.P.
Corporate Director of Research

B. SIGNATURE

Roy V. Harrington

C. DATE SIGNED

November 4, 1980

X. OPERATOR CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

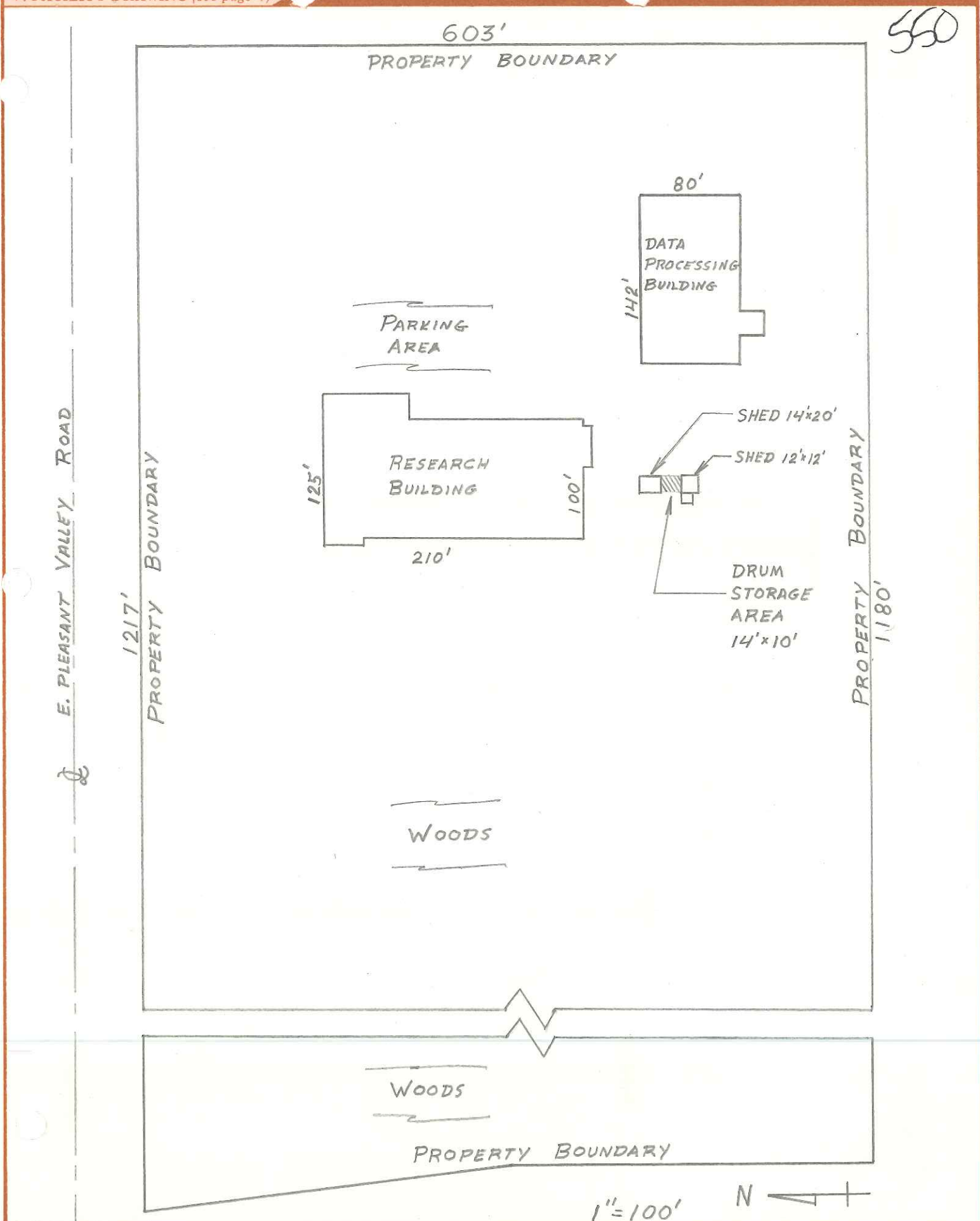
A. NAME (print or type)

NA

B. SIGNATURE

C. DATE SIGNED

V. FACILITY DRAWING (see page 4)





#3



#4



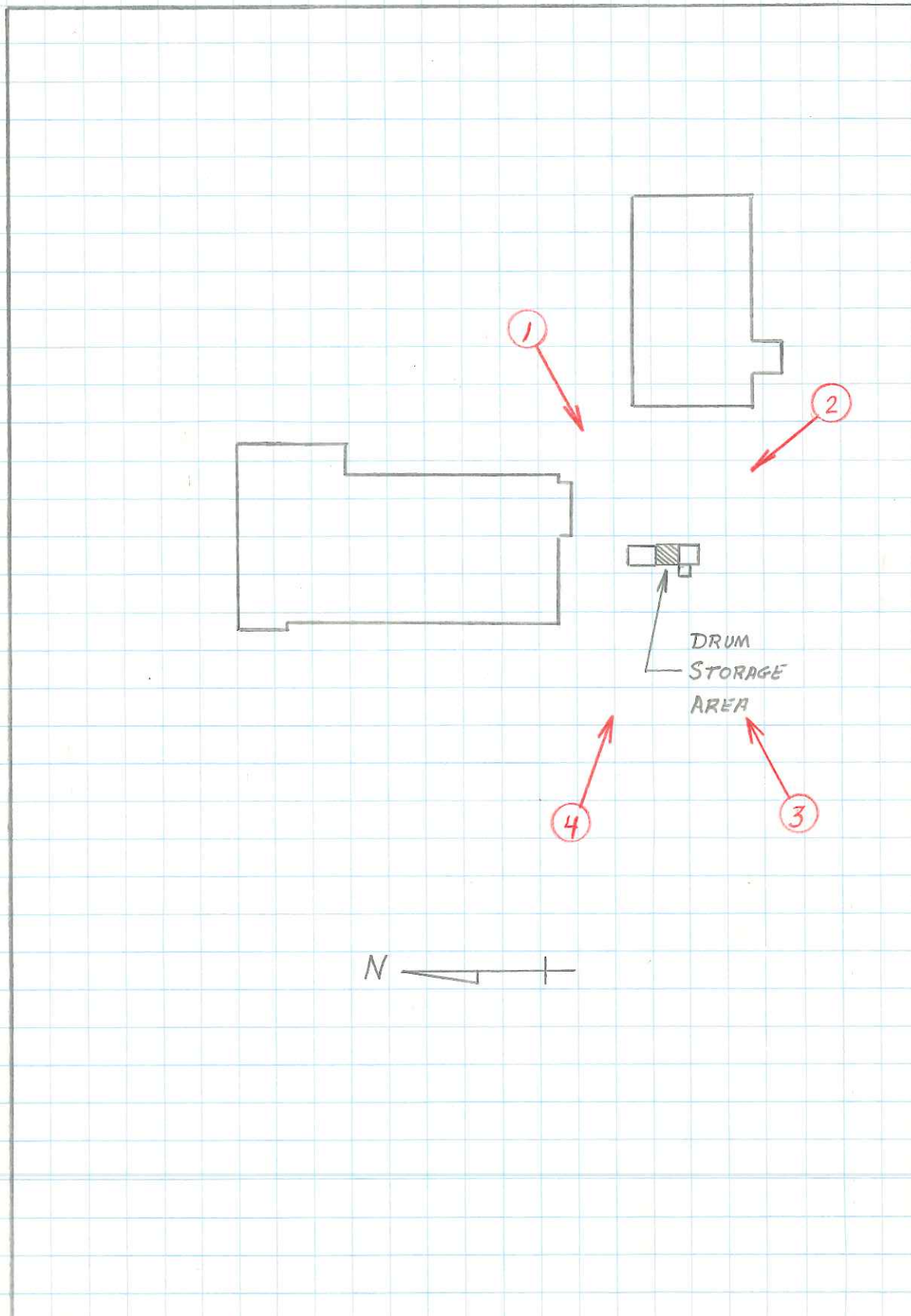
#2



#1

Ferro Corp. Tech Center
OHD 000817205

KEY TO PHOTOGRAPHS



FERRO CORPORATION TECHNICAL CENTER
7500 E. PLEASANT VALLEY ROAD
INDEPENDENCE, OHIO 44131

1"=100'

WASTE MINIMIZATION ADDENDUM TO GENERATOR BIENNIAL OR
ANNUAL HAZARDOUS WASTE REPORT FOR 1985

THIS REPORT IS FOR THE CALENDAR YEAR ENDING DECEMBER 31, 1985.

The Hazardous and Solid Waste Amendments of 1984 require all generators of hazardous waste to submit the following information to the United States Environmental Protection Agency or a State authorized to collect such information:

GENERATOR'S EPA I.D. No. 10|H|D|0|0|0|8|1|7|2|0|5|

GENERATOR NAME: Ferro Corporation Technical Center

GENERATOR ADDRESS: 7500 E. Pleasant Valley Rd.

Independence, OH 44131

WASTE MINIMIZATION

Describe in the space below your efforts, undertaken during calendar year 1985, to reduce the volume and toxicity of the hazardous waste which your business generates. Also describe changes in waste volume and toxicity actually achieved during 1985 in comparison to previous years, to the extent possible.

Being a research laboratory and because of the nature of our work, one of our main sources of waste is from unused and outdated chemicals. Therefore, our waste reduction activities are centered on controlling chemical purchases.

Our waste volume for 1985 was zero pounds - down from 39 pounds in 1984 and 7500 pounds in 1983. However, we expect this to go back up in 1986 due to projected "house cleaning" activities (i.e., review and reduction of our active chemical inventories).

RECEIVED

MAR 28 1986

SOLID WASTE BRANCH
U.S. EPA, REGION 4

*to file
5-12-87
BFB*

CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

David Harrison
PRINT/TYPE NAME

Mgr-Admin.
TITLE

D. Harrison
SIGNATURE

2/26/86
DATE SIGNED

B

FERRO CORPORATION

CORPORATE ENVIRONMENTAL AFFAIRS DEPARTMENT

FACSIMILE NO.: 216/641-8585, EXT. 7370
OR : 216/641-1771 (24 Hours)

* 216-441-4330

FACSIMILE COVER LETTERDATE NOVEMBER 13 / 92TOTAL NUMBER OF PAGES, INCLUDING COVER PAGE 3TO: CARRIE ERICSONCOMPANY: ATKEARNEYLOCATION: FAX PHONE 312-223-6200FROM: PAUL ANGUS EXT. 6350COMMENTS: ATTACHED IS:1) CLOSURE PLAN DOCUMENTATION2) OTHER INFORMATION VERBALLY
REQUESTED DURING V.S.I.

CORPORATE ENG
FEB 4 1983
RECEIVED

COPY

1983

HAZARDOUS WASTE STORAGE
CLOSURE PLAN

for

Ferro Corporation
Technical Center
7500 E. Pleasant Valley Rd.
Independence, Ohio 44131

February 3, 1983

All hazardous wastes that are not in shipping containers will be packaged for shipment. All wastes will then be removed from the site by an approved private hauler and taken to an approved private waste treatment facility. (All H.W. is in one of two locations: outside between the sheds or in the hallway Storage Room.)

The amount of waste to be disposed of at any time will range from 200 to 10,000 pounds. This is the total waste from both locations.

It is estimated that the cost of packaging, transfer to shipping site, shipping, disposal and site inspections would be less than \$6,000.


D. G. Harrison

DGH/dmd
2/3/83

- COLLECTOR USED IN THE MAINTENANCE SHOP IS A TORIT CYCLONE DUST COLLECTOR - MODEL 19. WITH A 1200 CFM BLOWER, 8" DUCTING, AND AN EXIT VELOCITY OF 3425 FEET/MINUTE.

- THE MOST RECENT COMPANY TO TRANSPORT THE SLUDGE FROM THE MIXING ROOM SUMP WAS CHEMICAL ANALYTICS, ROMULUS MICHIGAN USEPA I.D. # MID.



YWC Midwest
4125 Hills & Dales Rd. NW/
Canton, OH 44708
(216) 492-1233
FAX (216) 492-2605

March 8, 1989

Mr. Eldrige E. White
Technical Center
Ferro Corporation
7500 East Pleasant Valley Road
Independence, Ohio 44131

Mr. White,

On February 28, 1989, Mr. L. Sherman and I meet with your staff and reviewed the closure documents and photographs of the RCRA permitted container storage area at the Technical Center. After reviewing these documents an inspection of the closed site was made. No hazardous waste containers were present and the area had been converted to an asphalt paved parking area.

From the information provided, OEPA correspondence of December 1984, photographs of the container storage area, and a visual site inspection, it is evident that this unit has been closed in accordance with the regulations and OEPA directives. Based on this information this letter serves as Certification of Closure for this unit as specified in 40 CFR 265.115.

If you have any further questions concerning this matter please contact Mr. L. Sherman or myself at 216-492-1233. Thank you for your assistance in this project.

Respectfully,


Douglas L. Dariano P.E.



TECHNICAL CENTER
FERRO CORPORATION

7500 EAST PLEASANT VALLEY RD.
INDEPENDENCE, OHIO 44131 U.S.A.
TELEPHONE: (216) 641-8580
FAX: (216) 524-0518

March 17, 1989

Ms. Lisa Pierard
Chief, Ohio Section
U.S. EPA-Region 5
230 South Dearborn Street
Chicago, Illinois 60604

RECEIVED

MAR 23 1989

OFFICE OF RCRA
Waste Management Division
U.S. EPA, REGION V

Dear Ms. Pierard:

RE: Closure Certification
Ferro Corporation
OHD 000 817 205

This letter is in response to your letter of December 15, 1989, to Eldrige E. White, Ferro Corporation, regarding closure certification of our hazardous waste facility.

You stated that the U.S. EPA was not in possession of a certification of closure to finalize closure of our facility's regulated unit.

Enclosed is a letter from Mr. Douglas L. Dariano (registered engineer) certifying closure of the facility as specified in 40 CFR 265.115.

We hope this resolves the issue and consider this matter closed unless we hear from you in fourteen days.

If you have any further questions, please contact me at (216) 641-8580.

Sincerely,

Eldrige E. White

Eldrige E. White
Manager, Corporate Research

EEW/tet

Enclosures

cc: Thomas Crepeau
Ohio EPA
Div., Solid & Hazardous Waste Mgmt.
P.O. Box 1049
Columbus, Ohio 43266-1049



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

230 SOUTH DEARBORN ST.

CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

5HR-13

DEC 15 1988

Mr. Eldrige E. White
Ferro Corporation
Technical Center
7500 East Pleasant Valley Road
Independence, Ohio 44131

RE: Closure Certification
Ferro Corporation
OHD 000 817 205

Dear Mr. White:

This letter responds to your letter of October 17, 1988, to Mr. William Muno of the United States Environmental Protection Agency (U.S. EPA). In your letter you stated your regulatory status under the Resource Conservation and Recovery Act as a generator only. You further describe the basis for your status and the support for it in your enclosure.

The letter from the Ohio Environmental Protection Agency (OEPA) to Ferro Corporation, dated April 8, 1987, makes reference to the company certifying closure of its hazardous waste facility on September 24, 1984, and retaining its status as a generator only at that time. However, in a letter from OEPA to Ferro Corporation, dated December 14, 1984, the State requested documentation from a registered engineer to certify closure of the drum storage area.

Presently, the U.S. EPA is not in possession of a certification of closure to finalize closure of the facility's regulated unit. Therefore, the U.S. EPA requests a copy of this document to complete our files and clear up this matter.

If you have any questions, please contact Mr. Daniel Patulski of my staff at, (312) 886-0656.

Sincerely,

Lisa Pierard, Chief
Ohio Section

cc: Thomas Crepeau, OEPA

DEC 15 1988

5HR-13

Mr. Eldrige E. White
Ferro Corporation
Technical Center
7500 East Pleasant Valley Road
Independence, Ohio 44131

RE: Closure Certification
Ferro Corporation
OHD 000 817 205

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Sincerely,

Lisa Pierard, Chief
Ohio Section

cc: Thomas Crepeau, OEPA

5HR:PATULSKI:bd:12/13/88

Disk #2

RCRA PERMITS	TYP.	AUTH.	IL. CHIEF	IN. CHIEF	MI. CHIEF	MN/WI CHIEF	OH. CHIEF	RFB CHIEF	O.R. A.D.D.	WMD DIR
INIT. DATE	12/14/88	12/14/88					12/14/88			

DEC 15 1988

5HR-13

Mr. Eldrige E. White
Ferro Corporation
Technical Center
7500 East Pleasant Valley Road
Independence, Ohio 44131

RE: Closure Certification
Ferro Corporation
OHD 000 817 205

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Sincerely,

Lisa Pierard, Chief
Ohio Section

cc: Thomas Crepeau, OEPA

5HR:PATULSKI:bd:12/13/88

Disk #2

RCRA PERMITS	TYP.	AUTH.	IL. CHIEF	IN. CHIEF	MI. CHIEF	MN/WI CHIEF	OH. CHIEF	RPS CHIEF	O.R. A.D.D.	WMD DIR
INIT. DATE	PA 12/14/88	DP 12/14/88					DP 12/14/88			



FERRO CORPORATION
ONE ERIEVIEW PLAZA
CLEVELAND OHIO 44114 U.S.A.
TELEPHONE 216 641-8560
TELEX 98-0165

March 31, 1987

04D0000817205

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Warren W. Tyler, Director
Ohio Environmental Protection Agency
361 East Broad Street
Columbus, Ohio 43215

Re: Use of Financial Test to Demonstrate Financial Responsibility
for Liability Coverage and Closure and/or Post-Closure Care
Under Chapters 3745-55 and 3745-66 of the Administrative Code

Dear Mr. Tyler:

Ferro Corporation (Ferro) is enclosing the following materials in support of its use of the financial test to demonstrate financial responsibilities for liability coverage and closure and/or post-closure care under Chapters 3745-55 and 3745-66 of the Administrative Code:

(1) A letter dated March 27, 1987, from Ferro's chief financial officer in the form specified in paragraph (a) of Rule 3745-55-51 of the Administrative Code;

(2) A copy of Ferro's 1986 Annual Report containing an independent certified public accountant's report on examination of Ferro's financial statements for the latest completed fiscal year; and

(3) A special report dated March 30, 1987, from Ferro's independent certified public accountant, Peat, Marwick, Mitchell & Co., to Ferro supplying the information required by Chapters 3745-55 and 3745-66 of the Administrative Code.

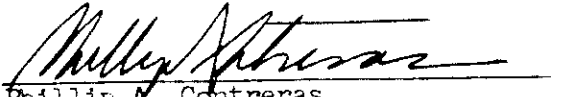
Please note that the enclosed financial test demonstration covers (1) closure costs; (2) liability for sudden occurrences; and (3) liability requirements for non-sudden occurrences.

March 31, 1986

Page 2

In preparing the enclosed financial responsibility demonstration, we have attempted to comply with all applicable requirements. However, if you discover any problems with the materials, please call as soon as possible.

Ferro Corporation,

By: 
Phillip A. Contreras
Vice President and General Counsel

cc: Valdus V. Adamkus (encl.)
Regional Administrator
U.S. EPA Region V



FERRO CORPORATION
ONE ERIEVIEW PLAZA
CLEVELAND OHIO 44114 U.S.A.
TELEPHONE 216 641-8580
TELEX 98 0165

March 27, 1987

Warren W. Tyler, Director
Ohio Environmental Protection Agency
361 East Broad Street
Columbus, Ohio 43215

Dear Mr. Tyler:

I am the chief financial officer of Ferro Corporation (Ferro), One Erieview Plaza, Cleveland, Ohio 44114. This letter is in support of the use of the financial test to demonstrate financial responsibility for liability coverage and closure and/or post-closure care as specified in Chapters 3745-55 and 3745-66 of the Administrative Code.

The owner or operator identified above is the owner or operator of the following facilities for which liability coverage is being demonstrated through the financial test specified in Chapters 3745-55 and 3745-66 of the Administrative Code:

<u>Facility Name</u>	<u>Address</u>	<u>EPA Identification No.</u>
Ferro Technical Center	7500 E. Pleasant Valley Road Independence, OH 44131	OHD000817205

1. The owner or operator identified above owns or operates the following facilities for which financial assurance for closure or post-closure care is demonstrated through the financial test specified in Chapters 3745-55 and 3745-66 of the Administrative Code. The current closure and/or post-closure cost estimates covered by the test are shown for each facility:

<u>Facility Name</u>	<u>Address</u>	<u>EPA Identification No.</u>	<u>Current Closure and/or Post-Closure Cost Estimates</u>
Ferro Technical Center	7500 E. Pleasant Valley Road Independence, OH 44131	OHD000817205	\$ <u>6,903</u> (closure)

2. The owner or operator identified above guarantees, through the corporate guarantee specified in Chapters 3745-55 and 3745-66 of the Administrative Code, the closure and post-closure care of the following facilities owned or operated by its subsidiaries. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility: none.

3. In States where U.S. EPA or a State so authorized is administering the financial requirements of Subpart H of 40 CFR Parts 264 or 265, this owner or operator is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in Chapters 3745-55 and 3745-66 of the Administrative Code. The current closure and/or post-closure cost estimates covered by such a test are shown for each facility.

<u>Facility Name</u>	<u>Address</u>	<u>EPA Identification No.</u>	<u>Current Closure and/or Post-Closure Cost Estimates</u>
Ferro Transelco Division	P.O. Box 217 Penn Yan, NY 14527	NYD000765024	\$ <u>63,262</u> (closure)
Ferro Composites Division	34 Smith Street P.O. Box 151 Norwalk, CT 06852	CTD001453547	\$ <u>44,966</u> (closure)

4. The owner or operator identified above owns or operates the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated to the director through the financial test or any other financial assurance mechanism specified in Chapters 3745-55 or 3745-66 of the Administrative Code. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility: none.

This owner or operator is required to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this owner or operator ends on December 31. The figures for the following items marked with an asterisk are derived from this owner's or operator's independently audited, year-end financial statements for the latest completed fiscal year, ended 1986.

Part A. Liability Coverage for Accidental Occurrences

ALTERNATIVE I

- | | | |
|--|-------|-------|
| 1. Amount of annual aggregate liability coverage to be demonstrated | \$ | _____ |
| *2. Current assets | \$ | _____ |
| *3. Current liabilities | \$ | _____ |
| 4. Net working capital (line 2 minus line 3) | \$ | _____ |
| *5. Tangible net worth | \$ | _____ |
| *6. If less than 90% of assets are located in the U.S., give total U.S. assets | \$ | _____ |
| | YES | NO |
| 7. Is line 5 at least \$10 million? | _____ | _____ |
| 8. Is line 4 at least 6 times line 1? | _____ | _____ |
| 9. Is line 5 at least 6 times line 1? | _____ | _____ |
| *10. Are at least 90% of assets located in the U.S.? If not, complete line 11 | _____ | _____ |
| 11. Is line 6 at least 6 times line 1? | _____ | _____ |

ALTERNATIVE II

- | | | |
|---|----|-------|
| 1. Amount of annual aggregate liability | \$ | _____ |
| 2. Current bond rating of most recent issuance and name of rating service | | _____ |
| 3. Date of issuance of bond | | _____ |
| 4. Date of maturity of bond | | _____ |
| *5. Tangible net worth | \$ | _____ |

- *6. Total assets in U.S. (required only if less than 90% of assets are located in the U.S.):

\$ _____

YES NO

7. Is line 5 at least \$10 million? _____
8. Is line 5 at least 6 times line 1? _____
- *9. Are at least 90% of assets located in the U.S.? If not, complete line 10. _____
10. Is line 6 at least 6 times line 1? _____

Part B. Closure or Post-Closure Care and Liability Coverage

ALTERNATIVE I

1. Sum of current closure and post-closure cost estimates (total of all cost estimates listed above): \$ 115,131
2. Amount of annual aggregate liability coverage to be demonstrated: \$ 8,000,000
3. Sum of lines 1 and 2: \$ 8,115,131
- *4. Total liabilities (if any portion of your closure or post-closure cost estimates is included in your total liabilities, you may deduct that portion from this line and add that amount to lines 5 and 6): \$226,051,000
- *5. Tangible net worth: \$217,750,000
- *6. Net worth: \$223,297,000
- *7. Current assets: \$271,643,000
- *8. Current liabilities: \$131,605,000
9. Net working capital (line 7 minus line 8): \$140,038,000

*10. The sum of net income plus depreciation, depletion, and amortization: \$ 43,271,000

*11. Total assets in U.S. (required only if less than 90% of assets are located in the U.S.): \$232,000,000

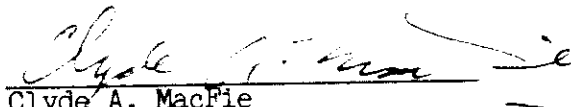
	YES	NO
12. Is line 5 at least \$10 million?	<u>X</u>	<u> </u>
13. Is line 5 at least 6 times line 3?	<u>X</u>	<u> </u>
14. Is line 9 at least 6 times line 3?	<u>X</u>	<u> </u>
*15. Are at least 90% of assets located in the U.S.? If not, complete line 16.	<u> </u>	<u>X</u>
16. Is line 11 at least 6 times line 3?	<u>X</u>	<u> </u>
17. Is line 4 divided by line 6 less than 2.0?	<u>X</u>	<u> </u>
18. Is line 10 divided by line 4 greater than 0.1?	<u>X</u>	<u> </u>
19. Is line 7 divided by line 8 greater than 1.5?	<u>X</u>	<u> </u>

ALTERNATIVE II

1. Sum of current closure or post-closure cost estimates (total of all cost estimates listed above):	<u>\$ 115,131</u>
2. Amount of annual aggregate liability coverage to be demonstrated:	<u>\$ 8,000,000</u>
3. Sum of lines 1 and 2:	<u>\$ 8,115,131</u>
4. Current bond rating of most recent issuance and name of rating service:	<u>Baa-1 Moody's</u> <u>BBB+ Standard & Poor's</u>
5. Date of issuance of bond:	<u>January 15, 1967</u>

6. Date of maturity of bond: January 15, 1992
7. Tangible net worth (if any portion of the closure or post-closure costs estimates is included in "total liabilities" on your financial statements you may add that portion to this line): \$217,750,000
- *8. Total assets in the U.S. (required only if less than 90% of assets are located in the U.S.): \$232,000,000
- | | YES | NO |
|--|---------------|---------------|
| 9. Is line 7 at least \$10 million: | <u>X</u> | <u> </u> |
| 10. Is line 7 at least 6 times line 3? | <u>X</u> | <u> </u> |
| *11. Are at least 90% of assets located in the U.S.? If not, complete line 12. | <u> </u> | <u>X</u> |
| 12. Is line 8 at least 6 times line 3? | <u>X</u> | <u> </u> |

I hereby certify that the wording of this letter is identical to the wording specified in paragraph (g) of rule 3745-55-51 of the Administrative Code as such regulations were constituted on the date shown immediately below.


Clyde A. MacFie
Executive Vice President
Finance and Administration

March 27, 1987



Peat, Marwick, Mitchell & Co.
Certified Public Accountants
1600 National City Center
Cleveland, Ohio 44114
216-466-8100

March 30, 1987

Mr. Clyde A. MacFie
Executive Vice President, Finance
and Administration
Ferro Corporation
One Erieview Plaza
Cleveland, Ohio 44114

Dear Mr. MacFie:

Reference is made to your letter dated March 27, 1987, to the Director of the Ohio Environmental Protection Agency concerning use of the financial test to demonstrate financial responsibility for liability coverage and closure and/or post-closure care as specified in Chapters 3745-55 and 3745-66 of the Ohio Administrative Code. We have compared the data which your March 27, 1987 letter specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements, and in connection with that procedure, no matters came to our attention which caused us to believe that the specified data should be adjusted.

Very truly yours,

Peat, Marwick, Mitchell & Co.



FERRO CORPORATION
ONE ERIEVIEW PLAZA
CLEVELAND, OHIO 44114 U.S.A.
TELEPHONE: 216 641-8580
TELEX: 98-0165

March 31, 1987

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Valdas V. Adamkus
Regional Administrator
U.S. EPA - Region V
230 South Dearborn Street
Chicago, Illinois 60601

Re: Request for Determination of State Equivalency
for Use of Financial Test to Demonstrate Financial
Responsibility for Liability Coverage and Closure
and/or Post-Closure Care Under Chapters 3745-55 and
3745-66 of the Ohio Administrative Code

Dear Mr. Adamkus:

Ferro Corporation (Ferro) is hereby requesting a determination that use of the financial test to demonstrate financial responsibility for liability coverage and closure and/or post-closure care under Chapters 3745-55 and 3745-66 of the Ohio Administrative Code is "at least equivalent to" the financial mechanisms specified in Subpart H of 40 C.F.R. Parts 264 and 265. This request for use of the State-required mechanism in lieu of the federal provisions is made pursuant to 40 C.F.R. §265.149. Ferro is enclosing copies of the following materials for your review in making this determination:

- (1) A letter dated March 31, 1987 from me to Warren W. Tyler, Director of the Ohio Environmental Protection Agency enclosing Ferro's annual submission;
- (2) A letter dated March 27, 1987 from Ferro's Chief Financial Officer in the form specified in paragraph (a) of Rule 3745-55-51 of the Ohio Administrative Code;
- (3) A copy of Ferro's 1986 Annual Report containing an independent certified public accountant's report on examination of Ferro's financial statements for the last completed fiscal year; and


O. WMD
CC: RF (CERT #P 406 750 299)

March 31, 1987
Page 2

- (4) A special report dated March 30, 1987, from Ferro's independent certified public accountant Peat, Marwick, Mitchell & Co., to Ferro supplying the information required by Chapters 3745-55 and 3745-66 of the Ohio Administrative Code.

Thank you for your consideration of this request. Pending your determination, Ferro understands it is deemed to be in compliance with the federal regulations pursuant to 40 C.F.R. §265.149(a).

Ferro Corporation,

By: 
Phillip A. Contreras
Vice President and General
Counsel



1941 (3)
TECHNICAL CENTER
FERRO CORPORATION

7500 EAST PLEASANT VALLEY RD.
INDEPENDENCE, OHIO 44131 U.S.A.
TELEPHONE: (216) 641-8580
FAX: (216) 524-0518

March 17, 1989

Ms. Lisa Pierard
Chief, Ohio Section
U.S. EPA-Region 5
230 South Dearborn Street
Chicago, Illinois 60604

RECEIVED
OHIO EPA

MAR 22 1989

DIV. of SOLID & HAZ. WASTE MGT.

Dear Ms. Pierard:

RE: Closure Certification
Ferro Corporation
OHD 000 817 205

This letter is in response to your letter of December 15, 1989, to Eldrige E. White, Ferro Corporation, regarding closure certification of our hazardous waste facility.

You stated that the U.S. EPA was not in possession of a certification of closure to finalize closure of our facility's regulated unit.

Enclosed is a letter from Mr. Douglas L. Dariano (registered engineer) certifying closure of the facility as specified in 40 CFR 265.115.

We hope this resolves the issue and consider this matter closed unless we hear from you in fourteen days.

If you have any further questions, please contact me at (216) 641-8580.

Sincerely,

Eldrige E. White

Eldrige E. White
Manager, Corporate Research

EEW/tet

Enclosures

cc: Thomas Crepeau
Ohio EPA
Div., Solid & Hazardous Waste Mgmt.
P.O. Box 1049
Columbus, Ohio 43266-1049



AN ENVIRONMENTAL
SERVICES COMPANY

YWC Midwest
4125 Hills & Dales Rd. NW
Canton, OH 44708
(216) 492-1233
FAX (216) 492-2605

March 8, 1989

Mr. Eldrige E. White
Technical Center
Ferro Corporation
7500 East Pleasant Valley Road
Independence, Ohio 44131

Mr. White,

On February 28, 1989, Mr. L. Sherman and I meet with your staff and reviewed the closure documents and photographs of the RCRA permitted container storage area at the Technical Center. After reviewing these documents an inspection of the closed site was made. No hazardous waste containers were present and the area had been converted to an asphalt paved parking area.

From the information provided, OEPA correspondence of December 1984, photographs of the container storage area, and a visual site inspection, it is evident that this unit has been closed in accordance with the regulations and OEPA directives. Based on this information this letter serves as Certification of Closure for this unit as specified in 40 CFR 265.115.

If you have any further questions concerning this matter please contact Mr. L. Sherman or myself at 216-492-1233. Thank you for your assistance in this project.

Respectfully,


Douglas L. Dariano P.E.

441
4
RECEIVED
OHIO EPA

DEC 21 1988

DEC 15 1988

DIV. of SOLID & HAZ. WASTE MGT.

Mr. Eldrige E. White
Ferro Corporation
Technical Center
7500 East Pleasant Valley Road
Independence, Ohio 44131

RE: Closure Certification
Ferro Corporation
OHD 000 817 205

Dear Mr. White:

This letter responds to your letter of October 17, 1988, to Mr. William Huns of the United States Environmental Protection Agency (U.S. EPA). In your letter you stated your regulatory status under the Resource Conservation and Recovery Act as a generator only. You further describe the basis for your status and the support for it in your enclosure.

The letter from the Ohio Environmental Protection Agency (OEPA) to Ferro Corporation, dated April 8, 1987, makes reference to the company certifying closure of its hazardous waste facility on September 24, 1984, and retaining its status as a generator only at that time. However, in a letter from OEPA to Ferro Corporation, dated December 14, 1984, the State requested documentation from a registered engineer to certify closure of the drum storage area.

Presently, the U.S. EPA is not in possession of a certification of closure to finalize closure of the facility's regulated unit. Therefore, the U.S. EPA requests a copy of this document to complete our files and clear up this matter.

If you have any questions, please contact Mr. Daniel Patulski of my staff at, (312) 886-0656.

Sincerely,

Lisa Pierard, Chief
Ohio Section

cc: Thomas Crepeau, OEPA



State Of Ohio Environmental Protection Agency

P.O. Box 1049, 361 East Broad St., Columbus, Ohio 43216-1049
(614) 466-8565



Richard F. Celeste, Governor

RE: Ferro Corp.
+ OHD 000817205
+ OHD 004612295

Mr. Phillip A. Contreras
Vice President and
General Counsel
Ferro Corp.
One Erieview Plaza
Cleveland, OH 44114

July 28, 1986

Dear Mr. Contreras:

I hereby acknowledge the receipt of a 1986 RCRA financial test demonstration update, prepared on behalf of the facilities referenced above.

Ohio EPA has completed its review of Ferro Corp.'s financial test submission. In general, Ferro Corp. appears to meet the financial test criteria. However, I have noted some problems that should be corrected or clarified concerning the financial test demonstration. Please clarify or correct the following:

- o The financial test letter does not use the correct wording as specified in Paragraph (G) of Rule 3745-55 of the Ohio Administrative Code. A copy of your letter showing the variances and a copy of the correct wording has been enclosed. Note that the facilities in Paragraph 4 (Paragraph 3 in your letter) should be listed under Paragraph 3, which is missing from your submittal. The closure and post closure costs for the New York facility should be indicated as separate items. Please resubmit letter using the correct form.

Note that only one Alternative is required in the financial test.

Page...2
July 28, 1986

Please submit the corrected information to my attention by August 29, 1986. If you have questions, please contact me at (614) 462-6733.

Sincerely,

Edward A. Kitchen
Surveillance & Enforcement Section
Division of Solid & Hazardous
Waste Management

cc: Dave Sholtis, DSHWM
Steve Hamlin, SEDO
Dave Wertz, NEDO



Re: Hazardous Waste Activity Status
U.S. EPA I.D. No. OHD000817205
Ohio Permit No. 02-18-0219

9

April 5, 1985

Dr. Roy V. Harrington
Vice President Corporate Director Research
Ferro Corporation
7500 East Pleasant Valley Rd.
Independence, Ohio 44131

Dear Dr. Sarrington:

According to our records, your Ohio Hazardous Waste Installation & Operation Permit has expired. Prior to the expiration of that permit, you had informed and certified to the Ohio EPA that you no longer conducted hazardous waste activity for which a permit was required.

Therefore, this letter is to inform you that, based on the information you had submitted and an investigation by Agency staff, you will maintain the status of a generator only with less than 90 day storage.

You should continue to use the identification number assigned to you by the U.S. EPA for purposes of compliance with the Ohio EPA manifest, recordkeeping and reporting requirements for generators and transporters of hazardous waste as appropriate.

Should you have any questions concerning your current status, please contact the appropriate Ohio EPA District Office (see enclosed list).

Very truly yours,

Thomas E. Crepeau

Thomas E. Crepeau, Manager
Data Management Section
Division of Solid and Hazardous Waste Management

TEC/ds

Enclosure

cc: U.S. EPA, Region V
HWFB
D.O.

inter-office communication

to: Sue Nitecki, DSHWM, Permits, CO date: Oct. 25, 1989
from: Debbv Berg, RCRA, Group Leader, NEDO
subject: Ferro Corporation - Technical Center - OHD 000 817 205

This facility was HWFB permitted in December 1981. Several compliance inspections were conducted as a TSD. In 1984 the facility apparently closed its hazardous waste storage area although NEDO files do not contain any Director's formal approval letter. A closure certification letter was filed on September 25, 1984, by Ferro Corporation and was then apparently released of further TSD requirements (see OEPA's letter of April 8, 1987, attached).

This facility should be removed from your Ohio Part B candidate list.

DB:mo

Enclosure

cc: Tony Sasson, DSHWM, CO



RECEIVED
OCT 19 1988
OFFICE OF RCRA
Waste Management Division
U.S. EPA, REGION V

TECHNICAL CENTER
FERRO CORPORATION

7500 EAST PLEASANT-VALLEY RD.
INDEPENDENCE, OHIO 44131 U.S.A.
TELEPHONE: (216) 641-8580
TELEX: 98-0165

WMD-UK-KRB
EPA, REGION V

October 17, 1988

Mr. William E. Muno
Acting Associate Division Director
Office of RCRA - U.S. E.P.A.
Region 5
230 South Dearborn Street
Chicago, Illinois 60604

Re: Part B Call-In
Ferro Corporation - Technical Center
OHD000817205

Dear Mr. Muno:

This letter is in response to your letter of April 22, 1988, to Mr. Dave Harrison of the Ferro Corporate Technical Center. Your request for a Part B RCRA permit or withdrawal of the Part A application came as a surprise to us. Ferro Corporation Technical Center withdrew its Part A applications in 1984, prior to Ohio E.P.A. loss of authority to administer the RCRA program in 1986.

Attached you will find a copy of a letter from Ohio EPA confirming our withdrawal and our status as a 90-day-only generator.

I trust this clears up any misunderstanding or gap in your paperwork and resolves the matter. Please respond by acknowledgement that this meets your requirements.

If you have any questions, give me a call.

Very truly yours,

Eldridge E. White

Eldridge E. White

EEW/ras

cc: George Hamper (5HS-13)
Chief, Ohio Section
U.S. EPA-Region 5
230 South Dearborn St.
Chicago, Illinois 60604

Thomas Crepeau
Ohio EPA
Div., Solid & Hazardous Waste Mgmt.
P.O. Box 1049
Columbus, Ohio 43266-1049



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

230 SOUTH DEARBORN ST.

CHICAGO, ILLINOIS 60604

22 APR 1988

REPLY TO THE ATTENTION OF:

5HS-13

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

~~David Harrison~~ *E.E. WHITE*
Manager Administration
Ferro Corporation Technical Center
7500 E. Pleasant Valley Road
Independence, Ohio 44131

RE: Part B Call-in
Ferro Corporation Technical Center
OHD 000 817 205

WHITE
Dear Mr. ~~Harrison~~:

Some time ago, you should have received an acknowledgement of the United States Environmental Protection Agency's (U.S. EPA) receipt of your Part A permit application material for the above-referenced hazardous waste facility under the Resource Conservation and Recovery Act (RCRA) permit program. Accordingly, your facility is currently authorized with interim status under Section 3005(e) of RCRA. This letter constitutes the next step in the formal process leading toward issuance or denial of a RCRA permit. Under the authority of 40 CFR §270.10, this is a formal request for submittal of Part B of the permit application for the above-referenced facility. The Part B application is due six months from the date you receive this letter.

Enclosed is a copy of 40 CFR Part 270 which lists the items required for submitting the Part B permit application for your facility. A copy of the "Part B Completeness Checklist" is enclosed to help you in preparing a comprehensive and complete permit application.

If your facility chooses not to pursue a full RCRA permit, you may withdraw your intent to seek a permit by filing a closure plan with the U.S. EPA and Ohio Environmental Protection Agency (OEPA). Federal RCRA closure regulations (40 CFR Subpart G) require that you submit a closure plan to: George Hamper (5HS-13), Chief, Ohio Section, U.S. EPA - Region V, 230 South Dearborn Street, Chicago, Illinois 60604. Approval by both Agencies is necessary prior to commencement of any activities that are part of the closure plan.

Some facilities may be unable to comply with the financial responsibility requirements for liability coverage under 40 CFR §264.147. If your facility is unable to meet these requirements, or any other applicable requirements of 40 CFR Parts 270 or 264, then we must deny the permit for your facility. In that case, you would probably want to submit a closure plan under 40 CFR Subpart G rather than the completed Part B application.

If your facility never actually treated, stored, or disposed of hazardous waste under RCRA, then it may not be necessary to submit either a Part B application or a closure plan. However, you will have to submit a Part A withdrawal request for review. This request must demonstrate that your facility never actually qualified for interim status because either: 1) the waste was not a hazardous waste as defined in 40 CFR §261; 2) that there has been no treatment, storage, or disposal of the waste since November 19, 1980; or 3) that the hazardous waste management process was exempt from the permitting requirements of RCRA. For example, storage of waste generated on-site in containers or tanks less than 90 days is exempt from the permitting requirements of RCRA in accordance with 40 CFR §262.34. Likewise, treatment in a wastewater tank is exempt under 40 CFR §270.1(c)(2)(u). A withdrawal request must incorporate the signatory requirements contained in 40 CFR §270.11.

The Agency is committed to conducting the RCRA permitting process as efficiently as possible. Consequently, you may want to contact Mr. Daniel Patulski of my staff, at (312) 886-0656, to discuss any questions or concerns you have regarding the preparation of the application. Mr. Patulski will be available to discuss specific needs of your application or to meet with you in Chicago. These efforts are intended to generate complete applications, without requiring any information beyond that which is necessary to make RCRA permit decisions.

Should you have any questions about confidentiality of information, please refer to the enclosed rules on confidentiality as set forth in 40 CFR Part 2 and 40 CFR §270.12 of RCRA. If you anticipate asserting a claim of confidentiality, please review the above-referenced enclosure regarding substantiation of confidentiality (§2.208) that sets forth the criteria that must be met for claiming confidentiality.

Please be reminded that submission of the Part B application must be made six months from the receipt date (i.e., date this letter is received). Upon completion of the application, please send two copies to the U.S. EPA and three copies to the OEPA. Please number each page of the application uniquely, including all attachments (maps, specifications, etc.). A certification statement identical to the one stated in 40 CFR §270.11(d) must accompany each application and all additional submittals. Send two copies of the application to the following address:

RCRA ACTIVITIES
Part B Permit Application
U.S. EPA, Region V
Post Office Box A-3587
Chicago, Illinois 60690-3587

Send three copies to: Thomas Crepeau
Ohio Environmental Protection Agency
Division of Solid & Hazardous Waste Management
Post Office Box 1049
Columbus, Ohio 43266-1049

Failure to furnish the complete Part B permit application by the above date, and to provide in full all required information, is grounds for termination of interim status under 40 CFR §270.10. In addition, failure to answer this request may also result in subsequent enforcement action by the U.S. EPA.

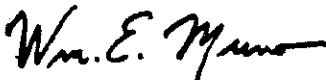
Upon receiving the Part B application, the U.S. EPA will coordinate its review with the OEPA and will strive for the simultaneous issuance of Federal and State hazardous waste facility permits. It is possible that during the processing of the application, the State hazardous waste program may become authorized to issue RCRA permits for your type of facility. In that case, direct Federal processing will cease, and OEPA, in lieu of U.S. EPA, will make the final determination on your permit application.

A copy of 40 CFR Part 264 is enclosed to help you in addressing the requirements and standards for the operation of treatment, storage and disposal facilities. These standards will become applicable to your facility upon issuance of a RCRA permit by U.S. EPA. A copy of the July 14, 1986, hazardous waste tank system regulatory amendments is also enclosed. These new rules establish technical standards and operating procedures for the owners and operators of tank systems that use tanks for accumulating, storing or treating hazardous waste. These rules may be applicable to your facility and are, therefore, enclosed for your information.

On November 8, 1984, the Hazardous and Solid Waste Amendments of 1984 (HSWA) were signed into law. This new law amends RCRA and contains many provisions which may affect your facility. Under the corrective action requirements of HSWA, your facility is required to correct all releases of hazardous waste or constituents from any solid waste management unit, regardless of the time at which waste was placed in the unit. Please note that the corrective action requirements apply to all solid waste management units, not just the hazardous waste management units subject to the permitting requirements. Enclosed is a document entitled "Certification Regarding Potential Releases from Solid Waste Management Units." It is necessary for you to complete and submit this form with your Part B application to help address corrective action requirements. If you previously completed and submitted this form, and if the information is accurate and up-to-date, you may simply include a copy of your previous submittal in your Part B application.

This Agency looks forward to working with you toward fulfilling the above request. Again, should you have any questions concerning the above matter, please contact us for assistance.

Sincerely,



William E. Muno
Acting Associate Division Director
Office of RCRA

Enclosures: 40 CFR Part 270 (applicable parts)
Part B Completeness Checklist
40 CFR Part 2 (applicable parts)
40 CFR Part 264 (applicable parts)
Certification Regarding Potential Releases
from Solid Waste Management Units

cc: Paul Flanigan, OEPA
District Office Manager, OEPA
Ed Lim, OEPA



State of Ohio Environmental Protection Agency

P.O. Box 1049, 361 E. Broad Street
Columbus, Ohio 43266-1049
(614) 466-8565

Richard F. Celeste
Governor

April 8, 1987

Re: Ferro Technical Center
Independence, Ohio
OHD000817205

Phillip A. Contreras
Vice President
Ferro Corporation
One Erieview Plaza
Cleveland OH 44114

Dear Mr. Contreras:

I have received Ferro Corporation's financial test demonstration to evidence compliance with Ohio rules requiring financial responsibility for hazardous waste treatment, storage or disposal facilities (TSD).

As the facility referenced above is no longer a TSD, such financial demonstration's are not necessary. Our records indicate that the Ferro Technical Center withdrew its Part A permit and certified closure of its hazardous waste facilities on September 24, 1984 and retained its status as a generator only of hazardous waste. Consequently, financial responsibility rules do not apply to this facility.

If you have any questions, please contact me at (614)462-8941.

Sincerely,

David Mentzer
S&E Section, DSHWM

DM/drr

1008S(14)

cc: Michael Savage, CO
Dave Wertz, NEDO
RF

ENVIRONMENTAL AFFAIRS DEPT.

APR 14 1987

RECEIVED

APR 13 1987

CORPORATE LEGAL
P. A. CONTRERAS



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

230 SOUTH DEARBORN ST.

CHICAGO, ILLINOIS 60604

22 APR 1988

REPLY TO THE ATTENTION OF:

5HS-13

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

~~David Harrison~~ *E.E. WHITE*
Manager Administration
Ferro Corporation Technical Center
7500 E. Pleasant Valley Road
Independence, Ohio 44131

RE: Part B Call-in
Ferro Corporation Technical Center
OHD 000 817 205

WHITE
Dear Mr. ~~Harrison~~:

Some time ago, you should have received an acknowledgement of the United States Environmental Protection Agency's (U.S. EPA) receipt of your Part A permit application material for the above-referenced hazardous waste facility under the Resource Conservation and Recovery Act (RCRA) permit program. Accordingly, your facility is currently authorized with interim status under Section 3005(e) of RCRA. This letter constitutes the next step in the formal process leading toward issuance or denial of a RCRA permit. Under the authority of 40 CFR §270.10, this is a formal request for submittal of Part B of the permit application for the above-referenced facility. The Part B application is due six months from the date you receive this letter.

Enclosed is a copy of 40 CFR Part 270 which lists the items required for submitting the Part B permit application for your facility. A copy of the "Part B Completeness Checklist" is enclosed to help you in preparing a comprehensive and complete permit application.

If your facility chooses not to pursue a full RCRA permit, you may withdraw your intent to seek a permit by filing a closure plan with the U.S. EPA and Ohio Environmental Protection Agency (OEPA). Federal RCRA closure regulations (40 CFR Subpart G) require that you submit a closure plan to: George Hamper (5HS-13), Chief, Ohio Section, U.S. EPA - Region V, 230 South Dearborn Street, Chicago, Illinois 60604. Approval by both Agencies is necessary prior to commencement of any activities that are part of the closure plan.

Some facilities may be unable to comply with the financial responsibility requirements for liability coverage under 40 CFR §264.147. If your facility is unable to meet these requirements, or any other applicable requirements of 40 CFR Parts 270 or 264, then we must deny the permit for your facility. In that case, you would probably want to submit a closure plan under 40 CFR Subpart G rather than the completed Part B application.

If your facility never actually treated, stored, or disposed of hazardous waste under RCRA, then it may not be necessary to submit either a Part B application or a closure plan. However, you will have to submit a Part A withdrawal request for review. This request must demonstrate that your facility never actually qualified for interim status because either: 1) the waste was not a hazardous waste as defined in 40 CFR §261; 2) that there has been no treatment, storage, or disposal of the waste since November 19, 1980; or 3) that the hazardous waste management process was exempt from the permitting requirements of RCRA. For example, storage of waste generated on-site in containers or tanks less than 90 days is exempt from the permitting requirements of RCRA in accordance with 40 CFR §262.34. Likewise, treatment in a wastewater tank is exempt under 40 CFR §270.1(c)(2)(u). A withdrawal request must incorporate the signatory requirements contained in 40 CFR §270.11.

The Agency is committed to conducting the RCRA permitting process as efficiently as possible. Consequently, you may want to contact Mr. Daniel Patulski of my staff, at (312) 886-0656, to discuss any questions or concerns you have regarding the preparation of the application. Mr. Patulski will be available to discuss specific needs of your application or to meet with you in Chicago. These efforts are intended to generate complete applications, without requiring any information beyond that which is necessary to make RCRA permit decisions.

Should you have any questions about confidentiality of information, please refer to the enclosed rules on confidentiality as set forth in 40 CFR Part 2 and 40 CFR §270.12 of RCRA. If you anticipate asserting a claim of confidentiality, please review the above-referenced enclosure regarding substantiation of confidentiality (§2.208) that sets forth the criteria that must be met for claiming confidentiality.

Please be reminded that submission of the Part B application must be made six months from the receipt date (i.e., date this letter is received). Upon completion of the application, please send two copies to the U.S. EPA and three copies to the OEPA. Please number each page of the application uniquely, including all attachments (maps, specifications, etc.). A certification statement identical to the one stated in 40 CFR §270.11(d) must accompany each application and all additional submittals. Send two copies of the application to the following address:

RCRA ACTIVITIES
Part B Permit Application
U.S. EPA, Region V
Post Office Box A-3587
Chicago, Illinois 60690-3587

Send three copies to: Thomas Crepeau
Ohio Environmental Protection Agency
Division of Solid & Hazardous Waste Management
Post Office Box 1049
Columbus, Ohio 43266-1049

Failure to furnish the complete Part B permit application by the above date, and to provide in full all required information, is grounds for termination of interim status under 40 CFR §270.10. In addition, failure to answer this request may also result in subsequent enforcement action by the U.S. EPA.

Upon receiving the Part B application, the U.S. EPA will coordinate its review with the OEPA and will strive for the simultaneous issuance of Federal and State hazardous waste facility permits. It is possible that during the processing of the application, the State hazardous waste program may become authorized to issue RCRA permits for your type of facility. In that case, direct Federal processing will cease, and OEPA, in lieu of U.S. EPA, will make the final determination on your permit application.

A copy of 40 CFR Part 264 is enclosed to help you in addressing the requirements and standards for the operation of treatment, storage and disposal facilities. These standards will become applicable to your facility upon issuance of a RCRA permit by U.S. EPA. A copy of the July 14, 1986, hazardous waste tank system regulatory amendments is also enclosed. These new rules establish technical standards and operating procedures for the owners and operators of tank systems that use tanks for accumulating, storing or treating hazardous waste. These rules may be applicable to your facility and are, therefore, enclosed for your information.

On November 8, 1984, the Hazardous and Solid Waste Amendments of 1984 (HSWA) were signed into law. This new law amends RCRA and contains many provisions which may affect your facility. Under the corrective action requirements of HSWA, your facility is required to correct all releases of hazardous waste or constituents from any solid waste management unit, regardless of the time at which waste was placed in the unit. Please note that the corrective action requirements apply to all solid waste management units, not just the hazardous waste management units subject to the permitting requirements. Enclosed is a document entitled "Certification Regarding Potential Releases from Solid Waste Management Units." It is necessary for you to complete and submit this form with your Part B application to help address corrective action requirements. If you previously completed and submitted this form, and if the information is accurate and up-to-date, you may simply include a copy of your previous submittal in your Part B application.

This Agency looks forward to working with you toward fulfilling the above request. Again, should you have any questions concerning the above matter, please contact us for assistance.

Sincerely,



William E. Muno
Acting Associate Division Director
Office of RCRA

Enclosures: 40 CFR Part 270 (applicable parts)
Part B Completeness Checklist
40 CFR Part 2 (applicable parts)
40 CFR Part 264 (applicable parts)
Certification Regarding Potential Releases
from Solid Waste Management Units

cc: Paul Flanigan, OEPA
District Office Manager, OEPA
Ed Lim, OEPA



State of Ohio Environmental Protection Agency

P.O. Box 1049, 361 E. Broad Street
Columbus, Ohio 43266-1049
(614) 466-8565

Richard F. Celeste
Governor

April 8, 1987

Re: Ferro Technical Center
Independence, Ohio
OHD000817205

Phillip A. Contreras
Vice President
Ferro Corporation
One Erieview Plaza
Cleveland OH 44114

Dear Mr. Contreras:

I have received Ferro Corporation's financial test demonstration to evidence compliance with Ohio rules requiring financial responsibility for hazardous waste treatment, storage or disposal facilities (TSD).

As the facility referenced above is no longer a TSD, such financial demonstration's are not necessary. Our records indicate that the Ferro Technical Center withdrew its Part A permit and certified closure of its hazardous waste facilities on September 24, 1984 and retained its status as a generator only of hazardous waste. Consequently, financial responsibility rules do not apply to this facility.

If you have any questions, please contact me at (614)462-8941.

Sincerely,

David Mentzer
S&E Section, DSHWM

DM/drr

1008S(14)

cc: Michael Savage, CO
Dave Wertz, NEDO
RF

ENVIRONMENTAL AFFAIRS DEPT.

APR 14 1987

RECEIVED

APR 13 1987

CORPORATE LEGAL
P. A. CONTRERAS



Re: Hazardous Waste Activity Status
U.S. EPA I.D. No. OHD000817205
Ohio Permit No. 02-18-0219

April 5, 1985

Dr. Roy V. Harrington
Vice President Corporate Director Research
Ferro Corporation
7500 East Pleasant Valley Rd.
Independence, Ohio 44131

Dear Dr. Sarrington:

According to our records, your Ohio Hazardous Waste Installation & Operation Permit has expired. Prior to the expiration of that permit, you had informed and certified to the Ohio EPA that you no longer conducted hazardous waste activity for which a permit was required.

Therefore, this letter is to inform you that, based on the information you had submitted and an investigation by Agency staff, you will maintain the status of a generator only with less than 90 day storage.

You should continue to use the identification number assigned to you by the U.S. EPA for purposes of compliance with the Ohio EPA manifest, recordkeeping and reporting requirements for generators and transporters of hazardous waste as appropriate.

Should you have any questions concerning your current status, please contact the appropriate Ohio EPA District Office (see enclosed list).

Very truly yours,

A handwritten signature in cursive script that reads "Thomas E. Crepeau".

Thomas E. Crepeau, Manager
Data Management Section
Division of Solid and Hazardous Waste Management

TEC/ds

Enclosure

cc: U.S. EPA, Region V
HWFB
D.O.



Re: Ohio Permit Renewal

Permit Expiration Date: September 24, 1984

August 14, 1984

Ferro Corp.
Attn: David Harrison
7500 E. Pleasant Valley
Independence

02-18-0219

OH 44131

Dear Sir or Madam:

This letter is to inform you that your Ohio Hazardous Waste Installation & Operation Permit will expire according to the terms and conditions of the permit on the date indicated above.

Enclosed please find a permit renewal application and a copy of Rule 3745-50-42 of the Ohio Administrative Code (OAC). This rule explains who may sign the permit application form according to Ohio rules. If you intend to continue hazardous waste activity which requires an Ohio hazardous waste permit at your facility, please complete and return the enclosed application form in accordance with the instructions given in this letter.

As a supplement to this application form, the Ohio EPA will soon begin the call-in of Part B applications under the provisions of OAC Rule 3745-50-40. Instructions for the Part B submittal will be provided by this Agency at that time. Therefore, formal action on your permit renewal application will be taken only after review of your Part B submittal. However, in accordance with the provisions of Sec. 119.06 of the Ohio Revised Code (ORC), your permit will continue to remain in effect until that formal action is taken, provided that you submit the enclosed renewal application form and fee prior to the expiration date of your permit.

In accordance with ORC Sec. 3734.02(E), payment of a fee in the amount of \$1,500.00 is due upon application for a hazardous waste permit. This fee is in lieu of the annual fee in the same amount which otherwise would be due on the anniversary of the issue date of the permit.

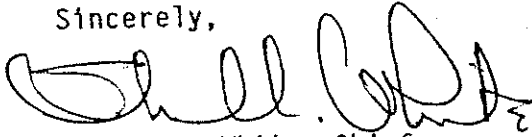
Please return the enclosed renewal application, the fee invoice card and your check in the amount of \$1,500.00 prior to the expiration date of your permit. Failure to respond in a timely manner could result in enforcement action being taken. All submittals should be sent to:

Ohio EPA
Division of Solid & Hazardous Waste Management
Attn: Data Management Section
P.O. Box 1049
Columbus, Ohio 43216

All checks should be made payable to: Treasurer, State of Ohio.

If you have any questions concerning the renewal of your hazardous waste permit or the permit fee, please contact the Data Management Section, telephone (614) 462-6731.

Sincerely,

A handwritten signature in dark ink, appearing to read "Steve White", with a stylized flourish at the end.

Steven H. White, Chief
Division of Solid & Hazardous Waste Management

SHW/bsr

cc: OEPA District Office

0757R

bcc: D. Harrison, M. Coker, M. Mann, P. Contreras, D. Spindler
Geoff Barnes
Squire, Sanders & Dempsey
1800 Huntington Bldg.
Cleveland, OH 44115



(03) RCRA

TECHNICAL CENTER
FERRO CORPORATION

7500 EAST PLEASANT VALLEY RD.
INDEPENDENCE, OHIO 44131 U.S.A.
TELEPHONE: (216) 641-8580
TELEX: 98-0165

September 24, 1984

RECEIVED
SEP 24 1984
CORPORATE ENG.

Ohio EPA
Division of Solid and Hazardous
Waste Management
Attn: Data Management Section
P. O. Box 1049
Columbus, OH 43216

Re: Ohio Permit Renewal
Permit Expiration Date: Sept. 24, 1984
Permit #02-18-0219
EPA I.D. #OHD000817205

Gentlemen:

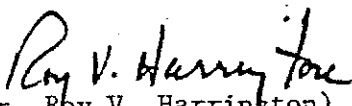
This letter is in response to your letter of August 14, 1984, and to inform you that the permitted storage area is no longer subject to storage requirements. The storage area has been closed and the certification of closure will be forwarded in the near future. The facility operates as a generator-only. Therefore, the \$1,500.00 renewal fee is not enclosed.

CERTIFICATION STATEMENT

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Permit Appl. No. 02-18-0219

FERRO CORPORATION
Corporate Research-Independence


(Dr. Roy V. Harrington)
Signature of Executive Officer

Vice President Corporate Director Research
Title

September 24, 1984

Attach: Invoice (EPA 9017)

cc: Steven H. White, Chief
Division of Solid & Hazardous
Waste Management
Ohio EPA
361 E. Broad Street
Columbus, OH 43216-1049

cc: Rodney Beals
Environmental Scientist
Division of Hazardous Matls Management
Ohio EPA
Northeast District Office
2110 E. Aurora Road
Twinsburg, OH 44087-1969

RVH:cb

Ohio EPA

(03) RCRA

COPY

Re: Ferro Corporation
Cuyahoga County
OHD 000-817-205
#02-18-0219
Generator

REC'D
12/29/84

RECEIVED
JAN 4 1985
CORPORATE ENG.

Mr. David Harrison
Ferro Corporation
7500 East Pleasant Valley Road
Independence, Ohio 44131

December 14, 1984

Dear Mr. Harrison:

On December 3, 1984, an inspection of the Ferro Corporation Technical Center facility located at 7500 E. Pleasant Valley Road, Independence, Ohio, was conducted by myself to determine the compliance of this facility with the Ohio Hazardous Waste regulations. You represented Ferro during this inspection.

On September 24, 1984, a letter was submitted to the OEPA by Ferro expressing that the drum storage area at the above address has been closed and that Ferro wishes to operate this facility as a generator only. My RCRA inspection on January 31, 1984, noted that all hazardous waste in storage was removed on November 30, 1983 and at the time of this inspection, this facility was in compliance with the applicable Ohio generator regulations. From our conversation during this inspection, Ferro has not yet submitted a closure certification by a registered engineer. This document must be submitted to finalize closure of this facility.

This inspection indicates that currently the Ferro Corporation Technical Center is a small quantity generator of hazardous waste and is exempted from regulation under Ohio Administrative Code (OAC) 3745-51-05.

This inspection report will become a part of the official records of the Ohio Environmental Protection Agency's Division of Solid & Hazardous Waste Management.

Please feel free to contact me at (216) 425-9171 if you have any questions.

Yours truly,



Rodney Beals
Environmental Scientist
Division of Solid & Hazardous Waste Management

RB:kr

cc: Paula Cotter, DSHWM, Central Office



State of Ohio Environmental Protection Agency

P.O. Box 1049, 361 E. Broad Street
Columbus, Ohio 43266-1049
(614) 466-8565

Richard F. Celeste
Governor

April 8, 1987

Re: Ferro Technical Center
Independence, Ohio
OHD000817205

Phillip A. Contreras
Vice President
Ferro Corporation
One Erieview Plaza
Cleveland OH 44114

Dear Mr. Contreras:

I have received Ferro Corporation's financial test demonstration to evidence compliance with Ohio rules requiring financial responsibility for hazardous waste treatment, storage or disposal facilities (TSD).

As the facility referenced above is no longer a TSD, such financial demonstration's are not necessary. Our records indicate that the Ferro Technical Center withdrew its Part A permit and certified closure of its hazardous waste facilities on September 24, 1984 and retained its status as a generator only of hazardous waste. Consequently, financial responsibility rules do not apply to this facility.

If you have any questions, please contact me at (614) 462-8941.

Sincerely,

David Mentzer
S&E Section, DSHWM

DM/drr

1008S(14)

cc: Michael Savage, CO
Dave Wertz, NEDO
RF

ENVIRONMENTAL AFFAIRS DEPT.

APR 14 1987

RECEIVED

APR 13 1987

CORPORATE LEGAL
P. A. CONTRERAS



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

230 SOUTH DEARBORN ST.

CHICAGO, ILLINOIS 60604

22 APR 1988

REPLY TO THE ATTENTION OF:

5HS-13

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

~~David Harrison~~ *E.E. WHITE*
Manager Administration
Ferro Corporation Technical Center
7500 E. Pleasant Valley Road
Independence, Ohio 44131

RE: Part B Call-in
Ferro Corporation Technical Center
OHD 000 817 205

WHITE
Dear Mr. ~~Harrison~~:

Some time ago, you should have received an acknowledgement of the United States Environmental Protection Agency's (U.S. EPA) receipt of your Part A permit application material for the above-referenced hazardous waste facility under the Resource Conservation and Recovery Act (RCRA) permit program. Accordingly, your facility is currently authorized with interim status under Section 3005(e) of RCRA. This letter constitutes the next step in the formal process leading toward issuance or denial of a RCRA permit. Under the authority of 40 CFR §270.10, this is a formal request for submittal of Part B of the permit application for the above-referenced facility. The Part B application is due six months from the date you receive this letter.

Enclosed is a copy of 40 CFR Part 270 which lists the items required for submitting the Part B permit application for your facility. A copy of the "Part B Completeness Checklist" is enclosed to help you in preparing a comprehensive and complete permit application.

If your facility chooses not to pursue a full RCRA permit, you may withdraw your intent to seek a permit by filing a closure plan with the U.S. EPA and Ohio Environmental Protection Agency (OEPA). Federal RCRA closure regulations (40 CFR Subpart G) require that you submit a closure plan to: George Hamper (5HS-13), Chief, Ohio Section, U.S. EPA - Region V, 230 South Dearborn Street, Chicago, Illinois 60604. Approval by both Agencies is necessary prior to commencement of any activities that are part of the closure plan.

Some facilities may be unable to comply with the financial responsibility requirements for liability coverage under 40 CFR §264.147. If your facility is unable to meet these requirements, or any other applicable requirements of 40 CFR Parts 270 or 264, then we must deny the permit for your facility. In that case, you would probably want to submit a closure plan under 40 CFR Subpart G rather than the completed Part B application.

If your facility never actually treated, stored, or disposed of hazardous waste under RCRA, then it may not be necessary to submit either a Part B application or a closure plan. However, you will have to submit a Part A withdrawal request for review. This request must demonstrate that your facility never actually qualified for interim status because either: 1) the waste was not a hazardous waste as defined in 40 CFR §261; 2) that there has been no treatment, storage, or disposal of the waste since November 19, 1980; or 3) that the hazardous waste management process was exempt from the permitting requirements of RCRA. For example, storage of waste generated on-site in containers or tanks less than 90 days is exempt from the permitting requirements of RCRA in accordance with 40 CFR §262.34. Likewise, treatment in a wastewater tank is exempt under 40 CFR §270.1(c)(2)(u). A withdrawal request must incorporate the signatory requirements contained in 40 CFR §270.11.

The Agency is committed to conducting the RCRA permitting process as efficiently as possible. Consequently, you may want to contact Mr. Daniel Patulski of my staff, at (312) 886-0656, to discuss any questions or concerns you have regarding the preparation of the application. Mr. Patulski will be available to discuss specific needs of your application or to meet with you in Chicago. These efforts are intended to generate complete applications, without requiring any information beyond that which is necessary to make RCRA permit decisions.

Should you have any questions about confidentiality of information, please refer to the enclosed rules on confidentiality as set forth in 40 CFR Part 2 and 40 CFR §270.12 of RCRA. If you anticipate asserting a claim of confidentiality, please review the above-referenced enclosure regarding substantiation of confidentiality (§2.208) that sets forth the criteria that must be met for claiming confidentiality.

Please be reminded that submission of the Part B application must be made six months from the receipt date (i.e., date this letter is received). Upon completion of the application, please send two copies to the U.S. EPA and three copies to the OEPA. Please number each page of the application uniquely, including all attachments (maps, specifications, etc.). A certification statement identical to the one stated in 40 CFR §270.11(d) must accompany each application and all additional submittals. Send two copies of the application to the following address:

RCRA ACTIVITIES
Part B Permit Application
U.S. EPA, Region V
Post Office Box A-3587
Chicago, Illinois 60690-3587

Send three copies to: Thomas Crepeau
Ohio Environmental Protection Agency
Division of Solid & Hazardous Waste Management
Post Office Box 1049
Columbus, Ohio 43266-1049

Failure to furnish the complete Part B permit application by the above date, and to provide in full all required information, is grounds for termination of interim status under 40 CFR §270.10. In addition, failure to answer this request may also result in subsequent enforcement action by the U.S. EPA.

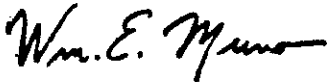
Upon receiving the Part B application, the U.S. EPA will coordinate its review with the OEPA and will strive for the simultaneous issuance of Federal and State hazardous waste facility permits. It is possible that during the processing of the application, the State hazardous waste program may become authorized to issue RCRA permits for your type of facility. In that case, direct Federal processing will cease, and OEPA, in lieu of U.S. EPA, will make the final determination on your permit application.

A copy of 40 CFR Part 264 is enclosed to help you in addressing the requirements and standards for the operation of treatment, storage and disposal facilities. These standards will become applicable to your facility upon issuance of a RCRA permit by U.S. EPA. A copy of the July 14, 1986, hazardous waste tank system regulatory amendments is also enclosed. These new rules establish technical standards and operating procedures for the owners and operators of tank systems that use tanks for accumulating, storing or treating hazardous waste. These rules may be applicable to your facility and are, therefore, enclosed for your information.

On November 8, 1984, the Hazardous and Solid Waste Amendments of 1984 (HSWA) were signed into law. This new law amends RCRA and contains many provisions which may affect your facility. Under the corrective action requirements of HSWA, your facility is required to correct all releases of hazardous waste or constituents from any solid waste management unit, regardless of the time at which waste was placed in the unit. Please note that the corrective action requirements apply to all solid waste management units, not just the hazardous waste management units subject to the permitting requirements. Enclosed is a document entitled "Certification Regarding Potential Releases from Solid Waste Management Units." It is necessary for you to complete and submit this form with your Part B application to help address corrective action requirements. If you previously completed and submitted this form, and if the information is accurate and up-to-date, you may simply include a copy of your previous submittal in your Part B application.

This Agency looks forward to working with you toward fulfilling the above request. Again, should you have any questions concerning the above matter, please contact us for assistance.

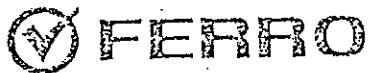
Sincerely,



William E. Muno
Acting Associate Division Director
Office of RCRA

Enclosures: 40 CFR Part 270 (applicable parts)
Part B Completeness Checklist
40 CFR Part 2 (applicable parts)
40 CFR Part 264 (applicable parts)
Certification Regarding Potential Releases
from Solid Waste Management Units

cc: Paul Flanigan, OEPA
District Office Manager, OEPA
Ed Lim, OEPA



TECHNICAL CENTER
FERRO CORPORATION

7500 EAST PLEASANT VALLEY RD.
INDEPENDENCE, OHIO 44131 U.S.A.
TELEPHONE: (216) 841-8580
TELEX: 98-0165

October 17, 1988

Mr. William E. Muno
Acting Associate Division Director
Office of RCRA - U.S. E.P.A.
Region 5
230 South Dearborn Street
Chicago, Illinois 60604

Re: Part B Call-In
Ferro Corporation - Technical Center
OHD000817205

Dear Mr. Muno:

This letter is in response to your letter of April 22, 1988, to Mr. Dave Harrison of the Ferro Corporate Technical Center. Your request for a Part B RCRA permit or withdrawal of the Part A application came as a surprise to us. Ferro Corporation Technical Center withdrew its Part A applications in 1984, prior to Ohio E.P.A. loss of authority to administer the RCRA program in 1986.

Attached you will find a copy of a letter from Ohio EPA confirming our withdrawal and our status as a 90-day-only generator.

I trust this clears up any misunderstanding or gap in your paperwork and resolves the matter. Please respond by acknowledgement that this meets your requirements.

If you have any questions, give me a call.

Very truly yours,

Eldrige E. White

EEW/ras

cc: George Hamper (SHS-13)
Chief, Ohio Section
U.S. EPA-Region 5
230 South Dearborn St.
Chicago, Illinois 60604

Thomas Crepeau
Ohio EPA
Div., Solid & Hazardous Waste Mgmt.
P.O. Box 1049
Columbus, Ohio 43266-1049

bcc: J. Berish w/o encl.
M. Coker w/encl.
P. Contreras w/o encl.
D. Harrison w/o encl.
D. Stephenson (SS&D, Cleveland) w/encl.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

230 SOUTH DEARBORN ST.

CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

5HR-13

DEC 15 1988

Mr. Eldrige E. White
Ferro Corporation
Technical Center
7500 East Pleasant Valley Road
Independence, Ohio 44131

RE: Closure Certification
Ferro Corporation
OHD 000 817 205

Dear Mr. White:

This letter responds to your letter of October 17, 1988, to Mr. William Muno of the United States Environmental Protection Agency (U.S. EPA). In your letter you stated your regulatory status under the Resource Conservation and Recovery Act as a generator only. You further describe the basis for your status and the support for it in your enclosure.

The letter from the Ohio Environmental Protection Agency (OEPA) to Ferro Corporation, dated April 8, 1987, makes reference to the company certifying closure of its hazardous waste facility on September 24, 1984, and retaining its status as a generator only at that time. However, in a letter from OEPA to Ferro Corporation, dated December 14, 1984, the State requested documentation from a registered engineer to certify closure of the drum storage area.

Presently, the U.S. EPA is not in possession of a certification of closure to finalize closure of the facility's regulated unit. Therefore, the U.S. EPA requests a copy of this document to complete our files and clear up this matter.

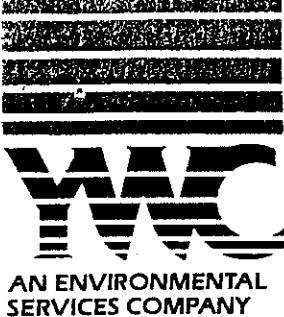
If you have any questions, please contact Mr. Daniel Patulski of my staff at, (312) 886-0656.

Sincerely,

Lisa Pierard

Lisa Pierard, Chief
Ohio Section

cc: Thomas Crepeau, OEPA



YWC Midwest
4125 Hills & Dales Rd. NW
Canton, OH 44708
(216) 492-1233
FAX (216) 492-2605

March 8, 1989

Mr. Eldrige E. White
Technical Center
Ferro Corporation
7500 East Pleasant Valley Road
Independence, Ohio 44131

Mr. White,

On February 28, 1989, Mr. L. Sherman and I meet with your staff and reviewed the closure documents and photographs of the RCRA permitted container storage area at the Technical Center. After reviewing these documents an inspection of the closed site was made. No hazardous waste containers were present and the area had been converted to an asphalt paved parking area.

From the information provided, OEPA correspondence of December 1984, photographs of the container storage area, and a visual site inspection, it is evident that this unit has been closed in accordance with the regulations and OEPA directives. Based on this information this letter serves as Certification of Closure for this unit as specified in 40 CFR 265.115.

If you have any further questions concerning this matter please contact Mr. L. Sherman or myself at 216-492-1233. Thank you for your assistance in this project.

Respectfully,


Douglas L. Dariano P.E.



TECHNICAL CENTER
FERRO CORPORATION

7500 EAST PLEASANT VALLEY RD.
INDEPENDENCE, OHIO 44131 U.S.A.
TELEPHONE: (216) 641-8580
FAX: (216) 524-0518

March 17, 1989

Ms. Lisa Pierard
Chief, Ohio Section
U.S. EPA-Region 5
230 South Dearborn Street
Chicago, Illinois 60604

Dear Ms. Pierard:

RE: Closure Certification
Ferro Corporation
OHD 000 817 205

This letter is in response to your letter of December 15, 1989, to Eldrige E. White, Ferro Corporation, regarding closure certification of our hazardous waste facility.

You stated that the U.S. EPA was not in possession of a certification of closure to finalize closure of our facility's regulated unit.

Enclosed is a letter from Mr. Douglas L. Dariano (registered engineer) certifying closure of the facility as specified in 40 CFR 265.115.

We hope this resolves the issue and consider this matter closed unless we hear from you in fourteen days.

If you have any further questions, please contact me at (216) 641-8580.

Sincerely,

Eldrige E. White
Manager, Corporate Research

EEW/tet

Enclosures

cc: Thomas Crepeau
Ohio EPA
Div., Solid & Hazardous Waste Mgmt.
P.O. Box 1049
Columbus, Ohio 43266-1049

bcc: J. Berish w/o encl.
M. Coker w/encl.
P. Contreras w/o encl.
D. Harrison w/encl.
D. Stephenson w/encl. (SS&D, Cleveland)

Re: Ferro Corporation
#02-18-0219

16

Mr. David Harrison
Ferro Corporation, Technical Center
7500 East Pleasant Valley Road
Independence, Ohio 44131

August 16, 1983

Dear Mr. Harrison:

Thank you for your August 9, 1983, reply regarding Contingency Plan deficiencies. The Ferro Corporation, Technical Center facility now appears to be in general compliance with applicable Ohio hazardous waste regulations OAC 3745-50 through 3745-58.

Please feel free to contact our office at (216) 425-9171, if you have any questions.

Yours truly,

Rodney Beals
Environmental Scientist
Division of Hazardous Materials Management

RB:km

cc: Paula Cotter, DHMM, Central Office
Ken Westlake, U.S. EPA - Region V

RECEIVED

AUG 10 1983

OHIO ENVIRONMENTAL
PROTECTION AGENCY
N. E. D. O.

HAZARDOUS WASTE SPILLS

Ferro Corporation
Technical Center
7500 E. Pleasant Valley Rd.
Independence, Ohio 44131

NOTE: In the event of sudden, uncontrollable or eminently dangerous releases of hazardous wastes - refer to the emergency procedures section of this manual.

In the event of a non-sudden (slow) release of any hazardous waste, the following steps will be taken.

1. Notify the emergency coordinator as to the nature of the problem.
2. If the spillage is flammable, move additional fire extinguishers to the spillage site. These should be the dry chemical type.
3. Take action to stop any additional spillage by:
 - a. Plugging any leaks
 - b. Transferring the waste to a new container
 - c. Turning the container so that the leak is facing up
4. Move any containers or other items necessary to fully expose the contaminated area. Be careful not to spread the spillage during this action.
5. Use the spill control material (Vermiculite) to soak up all of the spilled waste. This material along with shovels, plastic bags and steel containers is located in the center storage shed. The large steel drums are located behind the south storage shed. All of the used spill control material should be packaged and marked with the date and identification of the spilled waste. This package should then be placed into the hazardous waste storage area.

NOTE: Should the spilled waste extend beyond the hard storage surface, all of the contaminated soil should be removed and treated in the same manner as the used Vermiculite.

6. Once the spillage has been cleaned up, the remaining waste in the leaking container should be transferred to a new properly marked drum and returned to the hazardous waste storage area. The old container may or may not be classified as hazardous waste. (Refer to 40 CFR 261.7)
7. Clean the equipment used to clean up the spill and return all items to the center shed. Check the supplies to make sure

that there is sufficient material to handle any future spill. Order additional material at this time if needed.

8. Record all details of this event in the RCRA hazardous waste log.

D. G. Harrison

DGH/lam
8/8/83

hazardous • waste • facility • approval • board

mes A. Rhodes, Governor
Wayne S. Nichols, Chairman

18
nwfab

P.O. Box 1049
361 E. Broad St.
Columbus, Ohio 43216
(614) 462-6981

September 17, 1982

Ferro Corporation
Technical Center
7500 East Pleasant Valley Road
Independence, Ohio 44131
Attn: David Harrison

Dear Mr. Harrison:

An administrative error has been found in your hazardous waste facility permit 02-18-0219. On page 2 of 3, Item Nine should now read "Pursuant to Resolution No. 214-81, passed September 24, 1981, the Board found that the facility," etc.

We apologize for any inconvenience that this error may have caused you. Attached is a corrected copy of your permit. The original permit document has been corrected and entered into the Hazardous Waste Facility Approval Board Journal copy and our working files so that all existing permit copies read consistently.

Thank you for your cooperation in this matter.

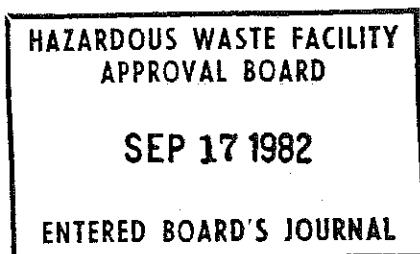
Sincerely,

Peggy J. Vince

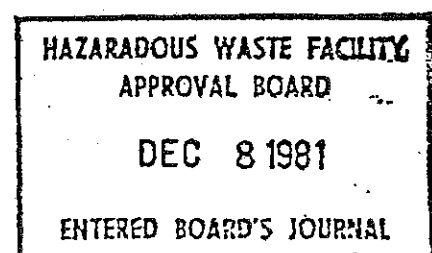
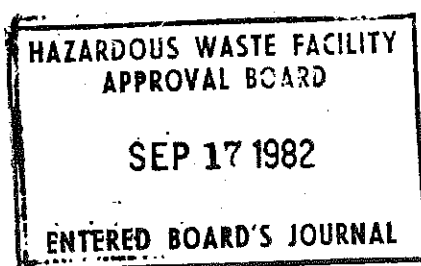
Peggy J. Vince
Executive Director
H.W.F.A.B.

PJV/mes

cc: Jim Flautt, Supervisor, Permit Data Management Unit, DHMM
Bob Fragale, H.W.F.A.B.



5. The Agency has informed the Applicant of the requirements of applicable hazardous waste rules of which it was not in compliance.
6. The Agency has recommended to the Board that a permit be issued to the facility.
7. Review and consideration of the information on the permit application, the results of the survey, the public comments, recommendations and comments by the Agency, and other pertinent material regarding the Applicant and the facility is sufficient to determine whether the facility meets the requirements for permit issuance set forth in Section 3734.05(D) of the Revised Code.
8. The staff of the Board has reviewed and considered the information on the permit application, the results of the survey, the public comments, the recommendation and comments by the Agency, and other pertinent material regarding the Applicant and the facility and has recommended to the Board that a permit be issued.
9. Pursuant to Resolution No. 214-81, passed September 24, 1981, the Board found that the facility:
 - a. Was in operation immediately prior to October 9, 1980,
 - b. Was in substantial compliance, as determined by the Director of Environmental Protection, with applicable statutes and rules in effect immediately prior to October 9, 1980,
 - c. Submitted a completed permit application, and
 - d. Has demonstrated to the Board that its operation after October 9, 1980 will comply with applicable performance standards adopted by the Director of Environmental Protection pursuant to division (D) of Section 3734.12 of the Revised Code.
10. Pursuant to such Resolution, the Board resolved and approved that a permit be issued with such standard terms and conditions set forth in the document entitled "Terms and Conditions" attached to the Resolution and such special terms and conditions as were approved by the Board.
11. The terms and conditions referenced in Finding Number 10 above, are attached hereto and incorporated herein.
12. Resolution No. 21-81, passed on August 26, 1981 and entered into the Journal of the Board on September 1, 1981, authorizes the Coordinator of the Board to:



hazardous • waste • facility • approval • board

James A. Rhodes, Governor
Wayne S. Nichols, Chairman

hwfab

P.O. Box 1049
361 E. Broad St.
Columbus, Ohio 43216
(614) 462-6981

Ferro Corporation
Technical Center
7500 East Pleasant Valley Road
Independence, Ohio 44131

Re: Permit No. ⁰² 81-18-0219

DEC 8 1981

Attn: David Harrison

Dear Permittee:

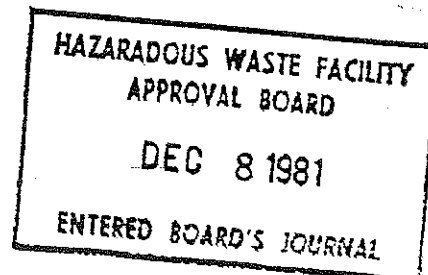
Transmitted herewith is a certified copy of your Hazardous Waste Facility Installation and Operation Permit (Permit) as such permit was entered into the Journal of the Board. The permit consists of the following:

- 1) The standardized permit form (Findings and Conclusions and Issuance).
- 2) Terms and Conditions as approved by the Board (Special Terms and Conditions applicable to all permittees and Special Terms and Conditions for specific facilities).
- 3) Portions of the approved Part A permit application indicating the approved hazardous waste processes and design capacities and those hazardous wastes, identified by U.S. EPA Hazardous Waste Number, to be managed at the facility.

Processes, design capacities, and/or specific hazardous wastes which are stricken through or crossed out on the Part A permit application are not included in the approved permit. Unless otherwise notified by certified mail and afforded the opportunity for an adjudication hearing before the Board, all such deletions have occurred with the authorization of the applicant or his representative.

You are encouraged to carefully read the permit in its entirety. Any questions or comments concerning its content should be addressed to:

Ms. Peggy J. Vince
Executive Director
Hazardous Waste Facility Approval Board
P.O. Box 1049
361 East Broad Street
Columbus, OH 43216
Ph: (614) 462-6981



YOU ARE HEREBY ADVISED THAT: All appeals of these matters are to the Court of Appeals of Franklin County, 369 South High St., Columbus, Ohio 43215, Attn: Deputy Clerk, and shall be pursuant to the provisions of Section 3734.05(C)(7) of the Revised Code.

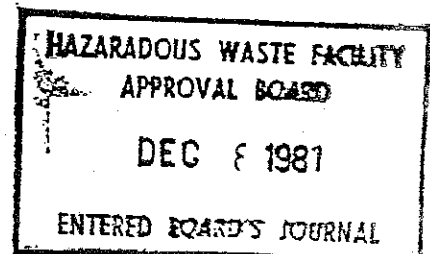
Sincerely,

Peggy J. Vince

Peggy J. Vince
Executive Director

PJV/ss

Enclosure



STATE OF OHIO

HAZARDOUS WASTE FACILITY APPROVAL BOARD

In the Matter of:

Ferro Corporation
Technical Center
7500 East Pleasant Valley Road
Independence, Ohio 44131

Permit No. 81-18-0219

Applicant/Permittee

The operator of the below-
referenced hazardous waste
facility

Ferro Corporation
Technical Center
7500 East Pleasant Valley Road
Independence, Ohio 44131

Facility

HAZARADOUS WASTE FACILITY
APPROVAL BOARD

DEC 8 1981

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Pursuant to Section 3734.05(D) of the Revised Code, The
Hazardous Waste Facility Approval Board (Board) makes the
following Findings and Conclusions and issues a Hazardous
Waste Facility Installation and Operation Permit (Permit)

FINDINGS AND CONCLUSIONS

1. The Applicant has submitted to the Board a completed permit application, stating the facility was in operation immediately prior to October 9, 1980, and has paid the required permit fee.
2. The Ohio Environmental Protection Agency (Agency) and/or the United States Environmental Protection Agency has inspected the facility and has prepared an Interim Status Standards Survey (survey).
3. All public comments timely received have been reviewed, evaluated and considered by the Board and the Agency for their relevancy and materiality.
4. The Agency has reviewed and considered the information on the permit application, the results of the survey, the public comments, and other pertinent material and has concluded that the facility was in substantial compliance, as determined by the Director of Environmental Protection, with applicable statutes and rules in effect immediately prior to October 9, 1980.

5. The Agency has informed the Applicant of the requirements of applicable hazardous waste rules of which it was not in compliance.
6. The Agency has recommended to the Board that a permit be issued to the facility.
7. Review and consideration of the information on the permit application, the results of the survey, the public comments, recommendations and comments by the Agency, and other pertinent material regarding the Applicant and the facility is sufficient to determine whether the facility meets the requirements for permit issuance set forth in Section 3734.05(D) of the Revised Code.
8. The staff of the Board has reviewed and considered the information on the permit application, the results of the survey, the public comments, the recommendation and comments by the Agency, and other pertinent material regarding the Applicant and the facility and has recommended to the Board that a permit be issued.
9. Pursuant to Resolution No. 154-81, passed September 9, 1981, the Board found that the facility:
 - a. Was in operation immediately prior to October 9, 1980,
 - b. Was in substantial compliance, as determined by the Director of Environmental Protection, with applicable statutes and rules in effect immediately prior to October 9, 1980,
 - c. Submitted a completed permit application, and
 - d. Has demonstrated to the Board that its operation after October 9, 1980 will comply with applicable performance standards adopted by the Director of Environmental Protection pursuant to division (D) of Section 3734.12 of the Revised Code.
10. Pursuant to such Resolution, the Board resolved and approved that a permit be issued with such standard terms and conditions set forth in the document entitled "Terms and Conditions" attached to the Resolution and such special terms and conditions as were approved by the Board.
11. The terms and conditions referenced in Finding Number 10 above, are attached hereto and incorporated herein.
12. Resolution No. 21-81, passed on August 26, 1981 and entered into the Journal of the Board on September 1, 1981, authorizes the Coordinator of the Board to:

HAZARADOUS WASTE FACILITY
APPROVAL BOARD

DEC 8 1981

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- a. Authorize the staff of the Board to issue to the facilities the Hazardous Waste Facility Installation and Operation Permits approved for issuance by resolution of the Board, and
- b. Have signing authority indicating that such action has been approved by the Board.

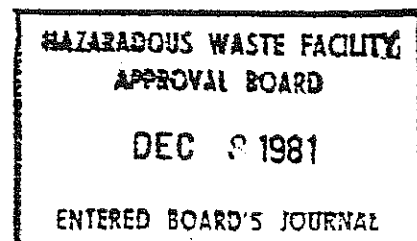
NOW THEREFORE, A HAZARDOUS WASTE FACILITY INSTALLATION AND OPERATION PERMIT IS ISSUED TO THE Applicant for the facility, subject to the Terms and Conditions attached hereto and incorporated herein.

FOR THE BOARD, BY
ORDER OF THE BOARD

Peggy J. Vince Dec. 7, 1981

Entered into the Journal of the Board on Dec. 8, 1981 by

Madeline Samson/sec.



81-HW-0219

Form Approved OMB No. 156-R0175

If a box is marked for elite type, i.e., 12 characters/inch).

FORM



GENERAL INFORMATION

Consolidated Permit Program

(Read the "General Instructions" before starting.)

EPA I.D. NUMBER
FOHD000817205

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent (the area to the left of the label space lists the information that should appear), please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete items I, III, V, and VI (except VI-B which must be completed regardless). Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

PLEASE PLACE LABEL IN THIS SPACE

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.

SPECIFIC QUESTIONS	MARK "X"			SPECIFIC QUESTIONS	MARK "X"		
	YES	NO	FORM ATTACHED		YES	NO	FORM ATTACHED
A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A)		X		B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)		X	
C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)		X		D. Is this a proposed facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D)		X	
E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3)	X		X	F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)		X	
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X		H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)		X	
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X		J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		X	

III. NAME OF FACILITY

1 SKIP F ERRO COPORATION TECHNICAL CENTER

IV. FACILITY CONTACT

A. NAME & TITLE (last, first, & title)

B. PHONE (area code & no.)

2 HARRISON DAVID SUPERVISOR

216 641 8580

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX

3 7500 E. PLEASANT VALLEY RD.

B. CITY OR TOWN

4 INDEPENDENCE

C. STATE

OH

D. ZIP CODE

44131

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER

5 500 E. PLEASANT VALLEY RD.

B. COUNTY NAME

CUYAHOGA

C. CITY OR TOWN

S INDEPENDENCE

D. STATE

OH

E. ZIP CODE

44131

F. COUNTY CODE (if known)

HAZARADOUS WASTE FACILITY
APPROVAL BOARD

DEC 8 1981

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A. FIRST		B. SECOND	
2899 (specify)	CHEMICALS N.E.C.	72816 (specify)	INORGANIC PIGMENTS
C. THIRD		D. FOURTH	
3291 (specify)	ABRASIVE PRODUCTS	72869 (specify)	ORGANIC CHEMICALS

III. OPERATOR INFORMATION

A. NAME		B. Is the name listed in Item VIII-A also the owner?	
FERRO CORPORATION		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other", specify)		D. PHONE (area code & no.)	
F = FEDERAL S = STATE P = PRIVATE O = OTHER (specify) NA		216 641 8580	
E. STREET OR P.O. BOX			
NE ERIEVIEW PLAZA			

F. CITY OR TOWN	G. STATE	H. ZIP CODE	IX. INDIAN LAND
CLEVELAND	OH	44114	Is the facility located on Indian lands? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water)	D. PSD (Air Emissions from Proposed Sources)
N A	9 P N A
B. UIC (Underground Injection of Fluids)	E. OTHER (specify)
U N A	9 N A (specify) NA
C. RCRA (Hazardous Wastes)	E. OTHER (specify)
R I N P R O G R E S S	9 N A (specify) NA

MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

NATURE OF BUSINESS (provide a brief description)

THIS FACILITY PROVIDES THE RESEARCH AND DATA PROCESSING SERVICES FOR THE OTHER DIVISIONS OF FERRO CORPORATION. NO "PRODUCTS" ARE PRODUCED AT THIS LOCATION.

HAZARADOUS WASTE FACILITY
APPROVAL BOARD
DEC 8 1981
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CERTIFICATION (see instructions)		
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.		
A. NAME & OFFICIAL TITLE (type or print)	B. SIGNATURE	C. DATE SIGNED
Roy V. Harrington, Vice President Corporate Director of Research	Roy V. Harrington	November 4, 1980
REMARKS FOR OFFICIAL USE ONLY		

81-HW-0219

3	EPA	HAZARDOUS WASTE PERMIT APPLICATION Consolidated Permits Program (This information is required under Section 3005 of RCRA.)	I. EPA I.D. NUMBER F O H D 0 0 0 8 1 7 2 0 5
----------	------------	---	--

II. FIRST OR REVISED APPLICATION	
Place an "X" in the appropriate box in A or B below (mark one box only) to indicate whether this is the first application you are submitting for your facility or a revised application. If this is your first application and you already know your facility's EPA I.D. Number, or if this is a revised application, enter your facility's EPA I.D. Number in Item I above.	COMMENTS

A. FIRST APPLICATION (place an "X" below and provide the appropriate date) <input checked="" type="checkbox"/> 1. EXISTING FACILITY (See instructions for definition of "existing" facility. Complete item below.) Yr. 7 Mo. 1 Day 20 FOR EXISTING FACILITIES, PROVIDE THE DATE (yr., mo., & day) OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED (use the boxes to the left)	<input type="checkbox"/> 2. NEW FACILITY (Complete item below.) FOR NEW FACILITIES, PROVIDE THE DATE (yr., mo., & day) OPERATION BEGAN OR IS EXPECTED TO BEGIN Yr. 7 Mo. 1 Day 20
---	--

B. REVISED APPLICATION (place an "X" below and complete item I above) <input type="checkbox"/> 1. FACILITY HAS INTERIM STATUS	<input type="checkbox"/> 2. FACILITY HAS A RCRA PERMIT
---	--

III. PROCESSES - CODES AND DESIGN CAPACITIES

A. PROCESS CODE - Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are provided for entering codes. If more lines are needed, enter the code(s) in the space provided. If a process will be used that is not included in the list of codes below, then describe the process (including its design capacity) in the space provided on the form (Item III-C).

B. PROCESS DESIGN CAPACITY - For each code entered in column A enter the capacity of the process.
 1. AMOUNT - Enter the amount.
 2. UNIT OF MEASURE - For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.

PROCESS	PRO- CESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY	PROCESS	PRO- CESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Storage:			Treatment:		
CONTAINER (barrel, drum, etc.)	S01	GALLONS OR LITERS	TANK	T01	GALLONS PER DAY OR LITERS PER DAY
TANK	S02	GALLONS OR LITERS	SURFACE IMPOUNDMENT	T02	GALLONS PER DAY OR LITERS PER DAY
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS	INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR; GALLONS PER HOUR OR LITERS PER HOUR
ACRE IMPOUNDMENT	S04	GALLONS OR LITERS	OTHER (Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundments or incinerators. Describe the processes in the space provided; Item III-C)	T04	GALLONS PER DAY OR LITERS PER DAY
Disposal:					
INJECTION WELL	D79	GALLONS OR LITERS			
LANDFILL	D80	ACRE-FEET (the volume that would cover one acre to a depth of one foot) OR HECTARE-METER			
LAND APPLICATION	D81	ACRES OR HECTARES			
OCEAN DISPOSAL	D82	GALLONS PER DAY OR LITERS PER DAY			
SURFACE IMPOUNDMENT	D83	GALLONS OR LITERS			

UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE
GALLONS	G	LITERS PER DAY	V	ACRE-FEET	A
LITERS	L	TONS PER HOUR	D	HECTARE-METER	F
CUBIC YARDS	Y	METRIC TONS PER HOUR	W	ACRES	B
CUBIC METERS	C	GALLONS PER HOUR	E	HECTARES	Q
GALLONS PER DAY	U	LITERS PER HOUR	H		

EXAMPLE FOR COMPLETING ITEM III (shown in line numbers X-1 and X-2 below): A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.

DUP									
LINE NUMBER	A. PRO- CESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify)	2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY	LINE NUMBER	A. PRO- CESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT	2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY
X-1	S 0 2	600	G		5				
X-2	T 0 3	20	E		6				
1					7				
2					8				
3					9				
4					10				

HAZARADOUS WASTE FACILITY

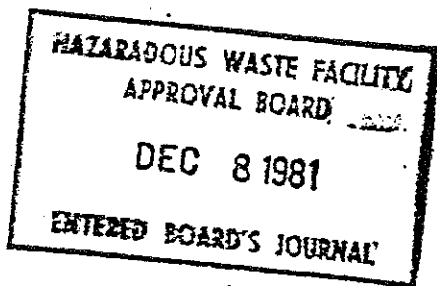
APPROVAL BOARD

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81-HW-0219

NA



IV. DESCRIPTION OF HAZARDOUS WASTES

- 1. EPA HAZARDOUS WASTE NUMBER** — Enter the four-digit number from 40 CFR, Subpart D for each listed hazardous waste you will handle. If you handle hazardous wastes which are not listed in 40 CFR, Subpart D, enter the four-digit number(s) from 40 CFR, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.
- 2. ESTIMATED ANNUAL QUANTITY** — For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.
- 3. UNIT OF MEASURE** — For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE		METRIC UNIT OF MEASURE	
POUNDS.....	P	KILOGRAMS.....	K
TONS.....	T	METRIC TONS.....	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

PROCESSES

1. PROCESS CODES:

For listed hazardous waste: For each listed hazardous waste entered in column A select the code(s) from the list of process codes contained in Item III to indicate how the waste will be stored, treated, and/or disposed of at the facility.

For non-listed hazardous waste: For each characteristic or toxic contaminant entered in column A, select the code(s) from the list of process codes contained in Item III to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.

Notes: Four spaces are provided for entering process codes. If more are needed: (1) Enter the first three as described above; (2) Enter "000" in the extreme right box of Item IV-D(1); and (3) Enter in the space provided on page 4, the line number and the additional code(s).

2. PROCESS DESCRIPTION: If a code is not listed for a process that will be used, describe the process in the space provided on the form.

FE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER — Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

- Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B, C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
- In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "Included with above" and make no other entries on that line.
- Repeat step 2 for each other EPA Hazardous Waste Number that can be used to describe the hazardous waste.

EXAMPLE FOR COMPLETING ITEM IV (shown in line numbers X-1, X-2, X-3, and X-4 below) — A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

A. EPA HAZARD. WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES	
			1. PROCESS CODES (enter)	2. PROCESS DESCRIPTION (if a code is not entered in D(1))
K 0 5 4	900	P	T 0 3 D 8 0	
D 0 0 2	400	P	T 0 3 D 8 0	
D 0 0 1	100	P	T 0 3 D 8 0	
D 0 0 2				included with above

continued from page 2.

OTE: Photocopy this page before completing if you have more than 26 wastes to list.

Form Approved OMB No. 158-S80004

0219

EPA I.D. NUMBER (enter from page 1)										FOR OFFICIAL USE ONLY									
D 0 0 0 8 1 7 2 0 5										W 2 DUP									

IV. DESCRIPTION OF HAZARDOUS WASTES (continued)

LINE NO.	A. EPA HAZARD. WASTE NO. (enter code)				B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES							
							1. PROCESS CODES (enter)				2. PROCESS DESCRIPTION (If a code is not entered in D(1))			
	22	23	24	25	26	27	28	29	30	31	32	33	34	35
1	F	0	0	1	200	P	S	0	1					All Wastes Will Be Removed By
2	F	0	0	2	200	P	S	0	1					an Approved Private Hauler to
3	F	0	0	3	1600	P	S	0	1					an Approved Private Waste Treat-
4	F	0	0	4	30	P	S	0	1					ment Facility
5	F	0	0	5	500	P	S	0	1					
6	P	0	1	1	< 10	P	S	0	1					
7	P	0	1	2	< 10	P	S	0	1					
8	P	0	2	2	< 10	P	S	0	1					
9	P	0	5	3	< 10	P	S	0	1					
10	P	0	6	1	< 10	P	S	0	1					
11		1	0	0	< 10	P	S	0	1					
12	D	0	0	5	100	P	S	0	1					
13	D	0	0	6	1000	P	S	0	1					
14	D	0	0	8	1000	P	S	0	1					
15	D	0	0	9	50	P	S	0	1					
16														
17														
18														
19														
20														
21														
22														
23														
24														
25														
26														

HAZARADOUS WASTE FACILITY
APPROVAL BOARD

DEC 8 1981

ENTERED BOARD'S JOURNAL

HAZARADOUS WASTE FACILITY
APPROVAL BOARD

DEC 8 1981

ENTERED BOARD'S JOURNAL

continued from the front.

DESCRIPTION OF HAZARDOUS WASTES (continued)

USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM ITEM D(1) ON PAGE 3.

81-HW-0219

HAZARADOUS WASTE FACILITY
APPROVAL BOARD

DEC 8 1981

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EPA I.D. NO. (enter from page 1)

04D000817205 6

FACILITY DRAWING

If existing facilities must include in the space provided on page 5 a scale drawing of the facility (see instructions for more detail).

PHOTOGRAPHS

If existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail).

I. FACILITY GEOGRAPHIC LOCATION

LATITUDE (degrees, minutes, & seconds)

41 21 38

LONGITUDE (degrees, minutes, & seconds)

81 37 51

II. FACILITY OWNER

☒ A. If the facility owner is also the facility operator as listed in Section VIII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below.

B. If the facility owner is not the facility operator as listed in Section VIII on Form 1, complete the following items:

1. NAME OF FACILITY'S LEGAL OWNER

NA

2. PHONE NO. (area code & no.)

3. STREET OR P.O. BOX

NA

4. CITY OR TOWN

NA

5. ST.

6. ZIP CODE

OWNER CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

NAME (print or type)

Dr. Roy V. Harrington, V.P.
Corporate Director of Research

B. SIGNATURE

Roy V. Harrington

C. DATE SIGNED

November 4, 1980

OPERATOR CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

NAME (print or type)

NA

B. SIGNATURE

C. DATE SIGNED

FACILITY DRAWING (see page 4)

81-HW-0219

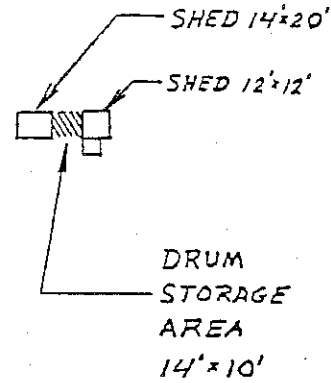
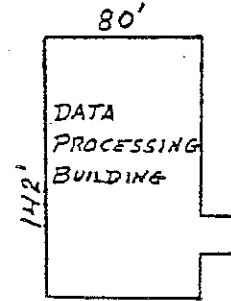
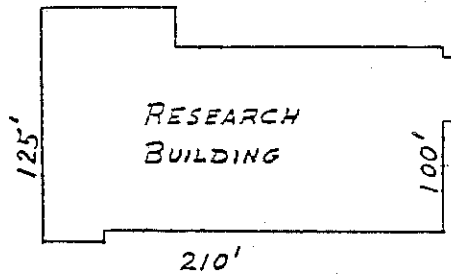
603'

PROPERTY BOUNDARY

E. PLEASANT VALLEY ROAD

1217' PROPERTY BOUNDARY

PARKING AREA



PROPERTY BOUNDARY 1180'

WOODS

HAZARADOUS WASTE FACILITY
APPROVAL BOARD

DEC 8 1981

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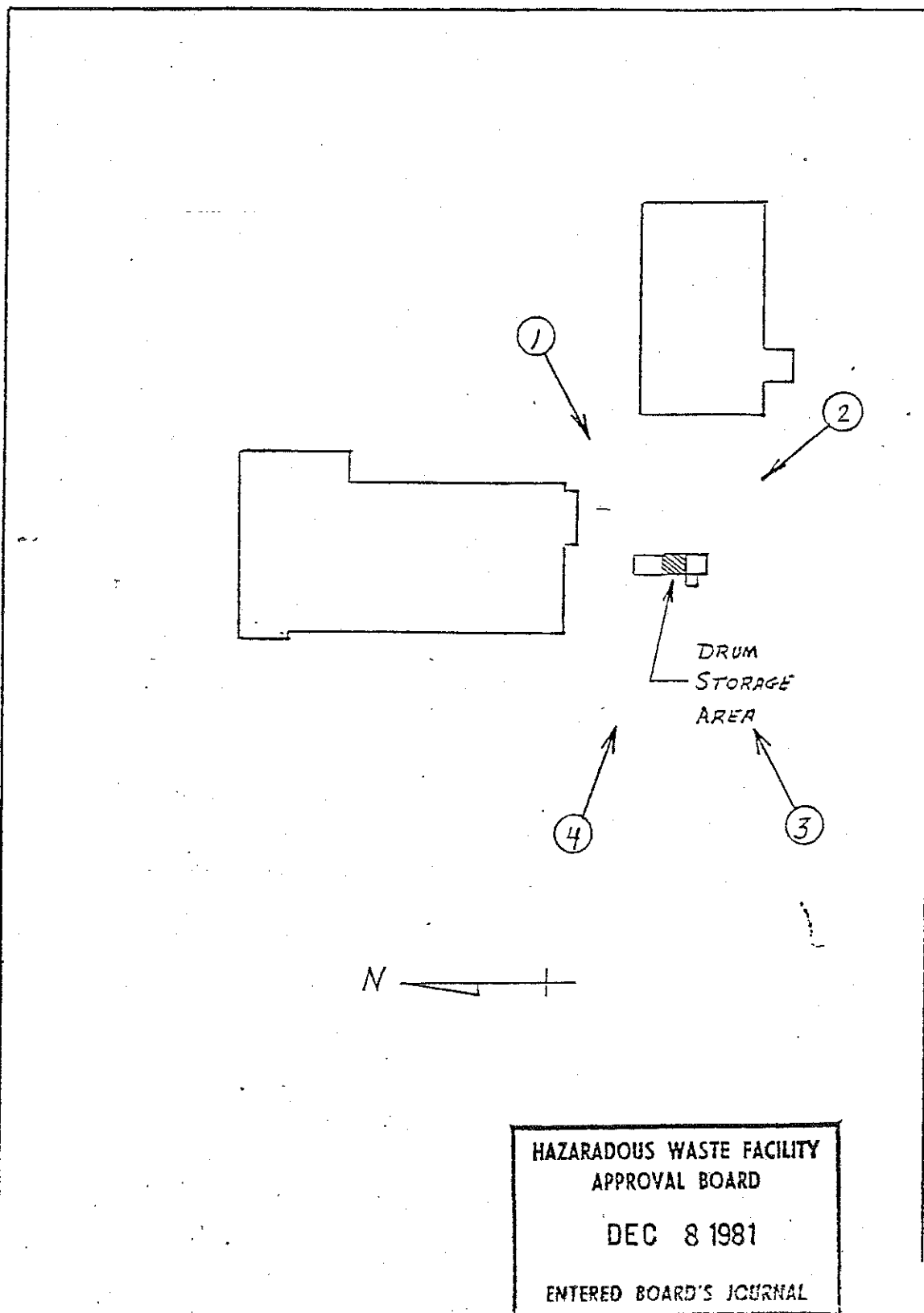
WOODS

PROPERTY BOUNDARY

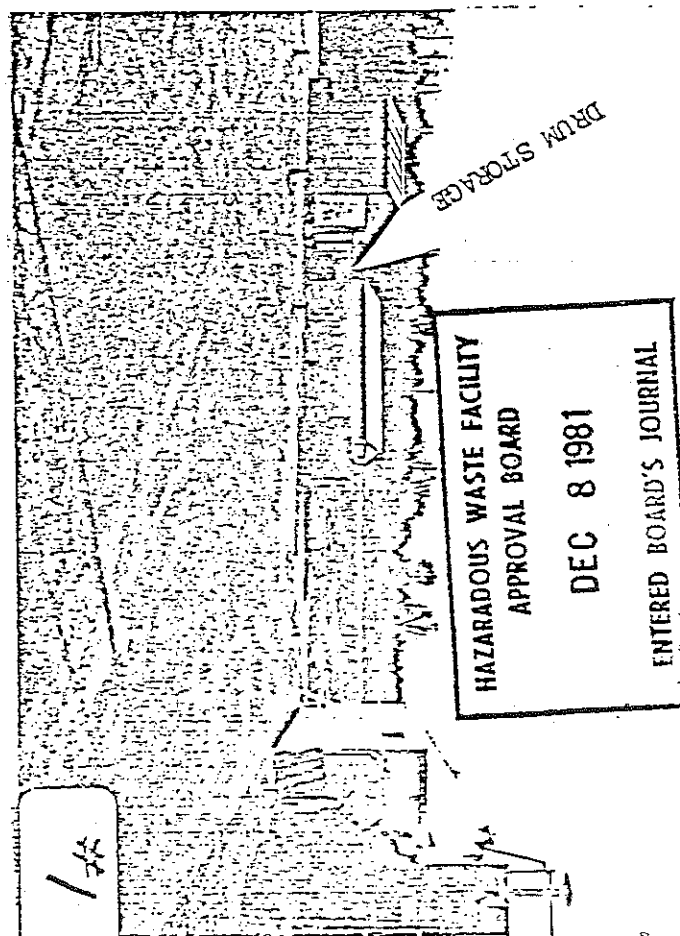
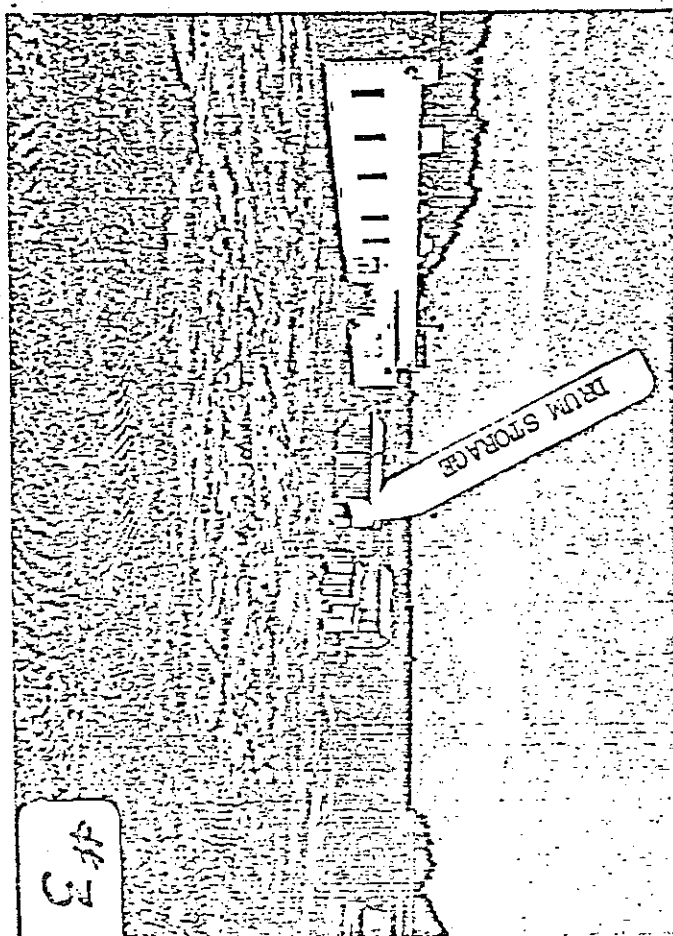
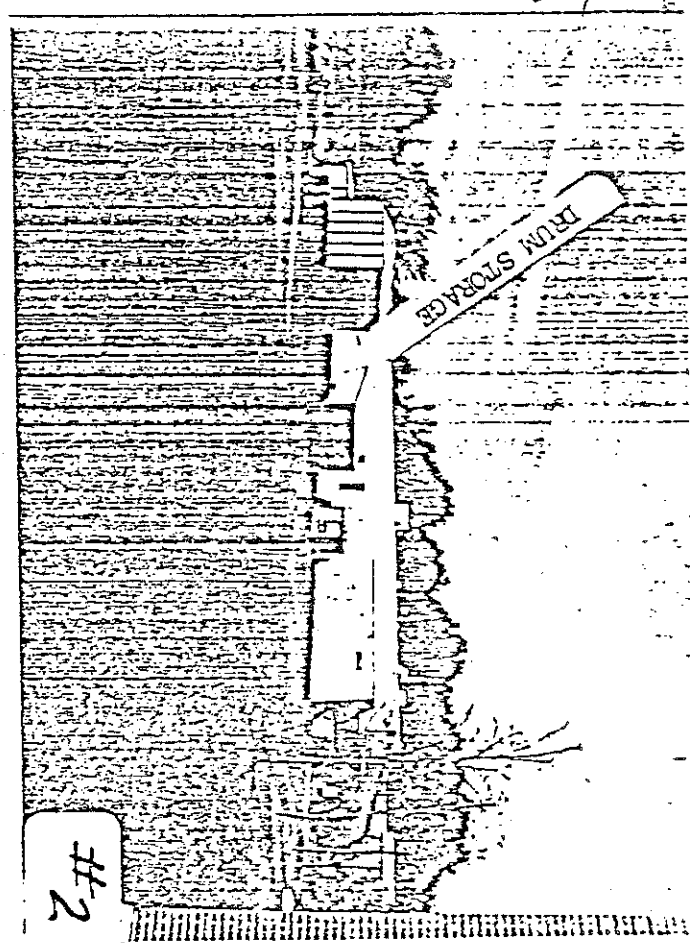
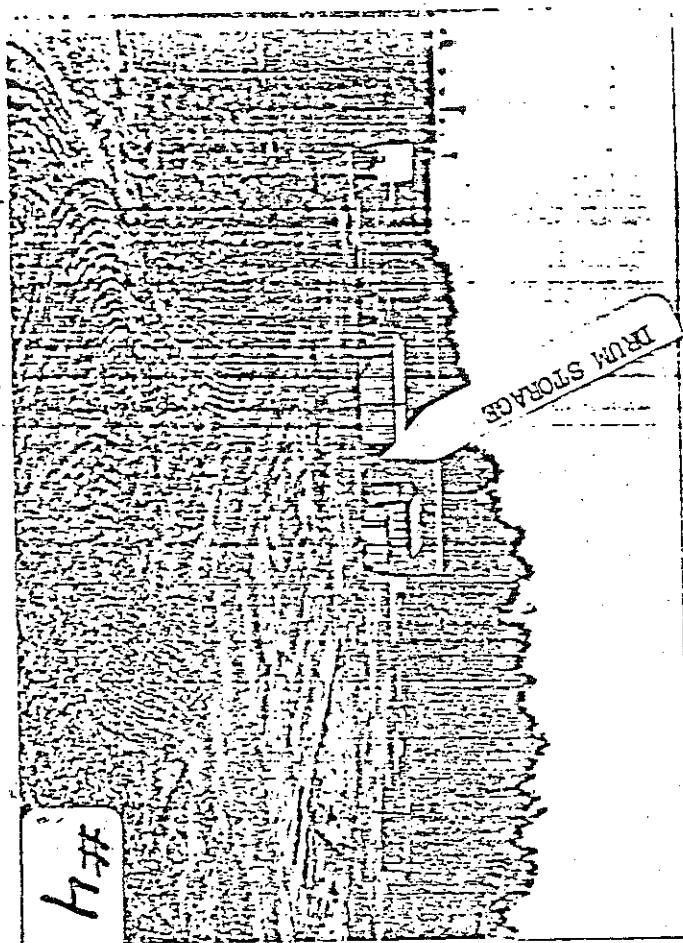
1"=100'

N

KEY TO PHOTOGRAPHS



FERRO CORPORATION TECHNICAL CENTER
7500 E. PLEASANT VALLEY ROAD
INDEPENDENCE, OHIO 44131



HAZARDOUS WASTE FACILITY

APPROVAL BOARD

DEC 8 1981

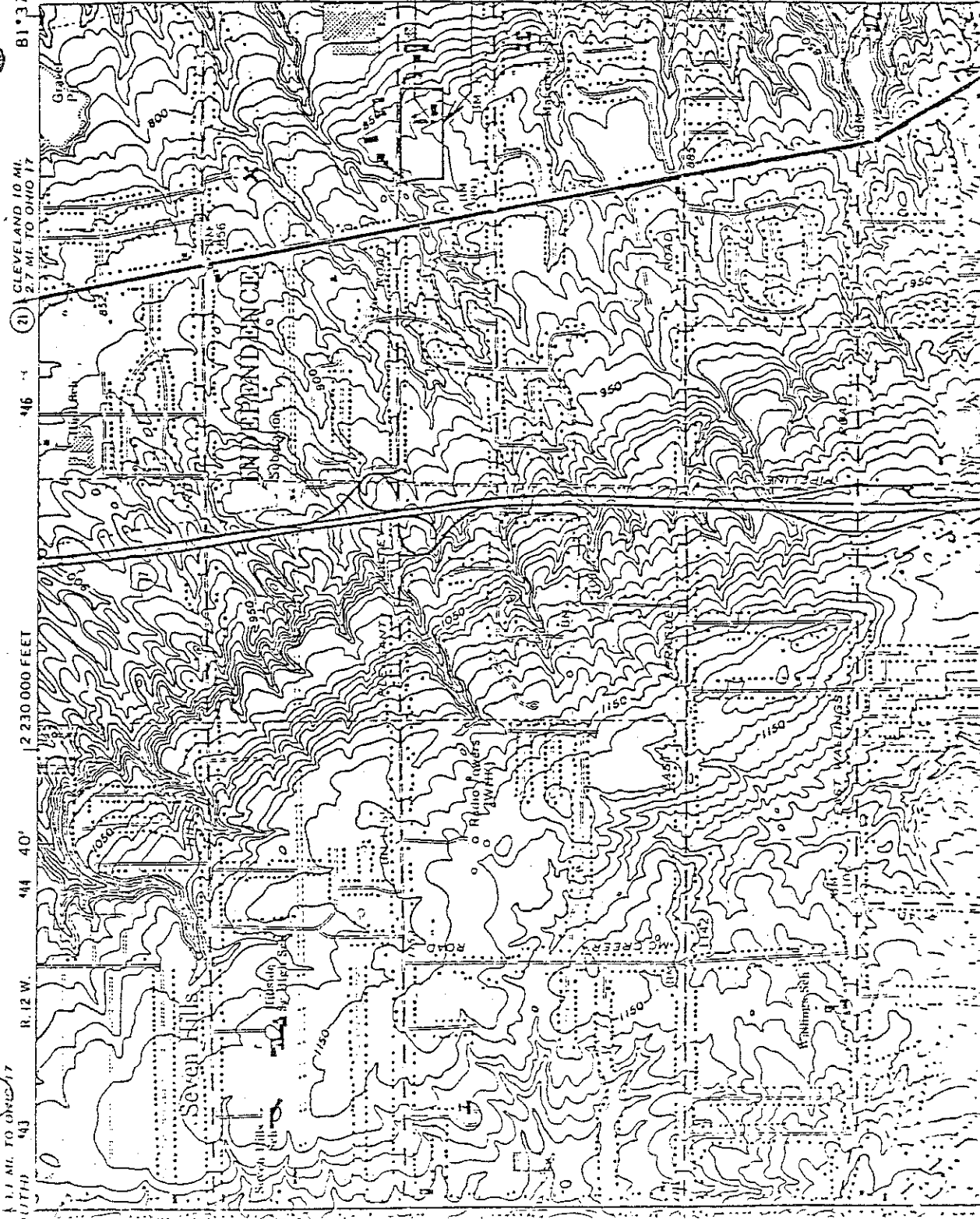
ENTERED BOARD'S JOURNAL

BROADVIEW HEIGHTS QUADRANGLE

OHIO

7.5 MINUTE SERIES (TOPOGRAPHIC)

SHAKER HEIGHTS
4861 NE



FERRO CORP.
TECH CENTER
7500 E. PLEASANT
VALLEY ROAD,
INDEPENDENCE, C.H.

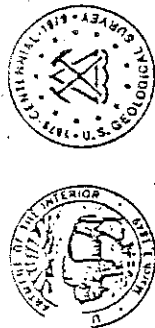
DRUM STONNER

FERRO TECH CENTER

SEE 2ND MAP FOR
THIS AREA

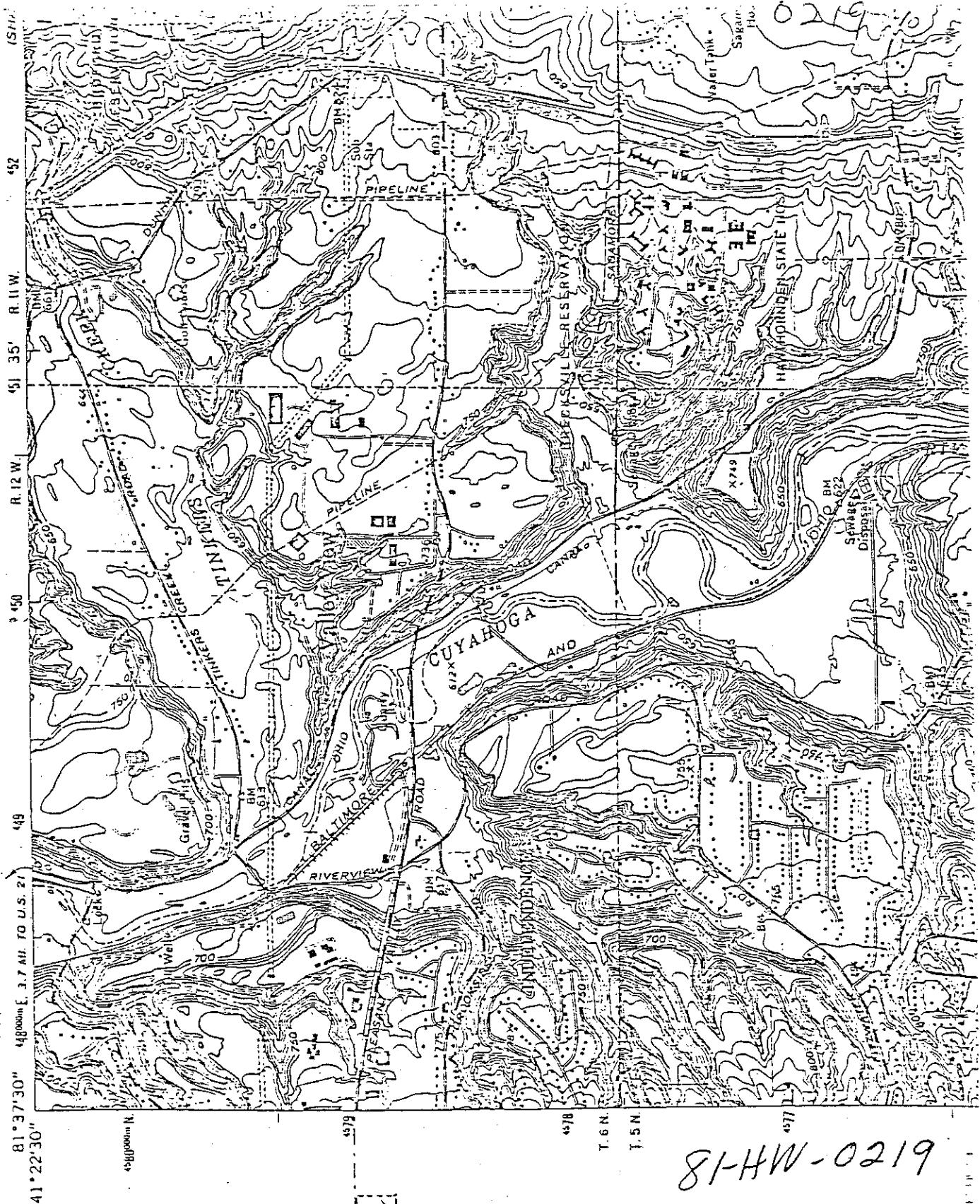
NORTHFIELD QUADRANGLE

0219



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

4500' NW
CLEVELAND SOUTH



NORTHFIELD
QUADRANGLE

HAZARADOUS WASTE FACILITY
APPROVAL BOARD
DEC 8 1981
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81-HW-0219

TERMS AND CONDITIONS (General)

1. Only those hazardous wastes as identified by the U.S. EPA Hazardous Waste Number(s) set forth in the approved permit application, attached hereto, may be managed at the facility and only pursuant to the specified processes and design capacities indicated and set forth in the approved permit application.
2. The Permittee and the facility shall comply with all applicable performance standards adopted by the Director of Environmental Protection pursuant to Division (D) of Section 3734.12 of the Revised Code.
3. The Permittee and the facility shall comply with all applicable requirements of Chapter 3734 of the Revised Code, the Ohio Hazardous Waste Rules, and the federal statutes and regulations concerning hazardous waste.
4. This permit shall expire three years after its date of issuance. The date of issuance is the date the resolution to issue the permit was passed by the Board.
5. This permit, in accordance with the procedures of the Board, may be modified, revoked, or alternatively revoked and reissued, to comply with applicable provisions of Chapter 3734 of the Revised Code or the Ohio Hazardous Waste Rules.
6. The annual permit fee, payable to the Treasurer of State, shall be submitted to and received by the Board on or before the anniversaries of the date of issuance, during the term of the permit.
7. Unless otherwise specifically provided, all studies, reports, data, plans and other information required to be submitted by this permit shall be transmitted to:

Hazardous Waste Facility Approval Board
P.O. Box 1049
361 East Broad Street
Columbus, Ohio 43216

The permit number shall be indicated on the transmittal letter.

TERMS AND CONDITIONS (Special)

NOT APPLICABLE

HAZARADOUS WASTE FACILITY APPROVAL BOARD DEC 8 1981 ENTERED BOARD'S JOURNAL
--

FILE CLOSED (date): _____

RCRA PROJECT FILE CHECKLIST ALEXANDRIA CENTRAL FILES

Project Number: R05-25-05 Work Plan Revision #: _____ (Work Plan Revision # required only if new revision changes required documentation.)

Project/Facility Name and EPA ID #: Ferro Corporation Technical Center OH0 000 817 205

Technical Director: Rob Young Work Assignment Manager: Carrie ERICSON

DATE CHECKLIST SENT TO CENTRAL FILES: (original) 3-4-93 (final) _____

Final Deliverable Due Date: 11-20-92 Expected File Closure Date: _____

(within 14 days of final deliverable)

Final Deliverable Submitted Date: 11-19-92

Source	ITEM	DATE GENERATED	DATE RECEIVED BY CF	LOCATION (IF NOT CF) Include Name, address and phone number.	ITEM NOT NEEDED
Poe	Signed Work Assignment - ORIGINAL and SUBSEQUENT REVISIONS (copy)				
TD	Work Assignment Delay Letter (WADL) (copy of original)				
CO	Original Work Assignment Delay Letter (WADL) - signed by CO				
TD	Work Plan - ORIGINAL (subsequent revisions LIST ON PAGE 2)				
Jordan	Fully Executed Work Plan Approval Form (subsequent revisions LIST ON PAGE 2)				
TD	Corporate COI Form (copy to central files, original to Jim Grieve, Chicago)				
Jordan	Personal COI Forms (originals)				
TD	Subcontractor Corporate COI Forms (original)				
J. Grieve	Work Order (originals)				
J. Grieve	Purchase Order (originals)				
P. Williams	Signed Health and Safety Checklist (original in Atlanta, copy in central files)				
TD	QC Comments (originals)				
TD	Deliverables (copies) plus diskette. (LIST ON PAGE 3) - This includes all training courses, guidance manuals, computer project documentation and maps incorporated into the deliverables - To conserve space, use binder clips or rubber bands instead of notebooks	3-4-93			
TD	CBI Documentation (original memo)				

RCRA PROJECT FILE CHECKLIST ALEXANDRIA CENTRAL FILES

PROJECT NUMBER: R05-25-05

[illegible]

PROJECT NUMBER: _____

[illegible]

RCRA PROJECT FILE CHECKLIST ALEXANDRIA CENTRAL FILES

PROJECT NUMBER: _____

[illegible]

TELEPHONE LOG

INITIATED BY Carrie Ervason DATE 11/4/92
TO Cleveland Water Dept
PHONE NO. 216-664-2444 FILE NO. _____
SUBJECT/REFERENCE _____

SUMMARY

Ron Reed - Engineering Dept.

RT 21

I Asked if the facilities along Pleasant Valley Road east of ~~RT~~ are well water or serviced by municipal system

Reply: hook-ups running N+S + E+W of intersection of Pleasant Valley + Rt. 21

water comes from lake

ACTION REQUIRED:

CC:

DISCUSS W/

FILE

AND CHRONO

MISC.

TELEPHONE LOG

INITIATED BY Came Ericson DATE 11/3/92
TO Ferro Corp - Paul Angus 216-641-8580
PHONE NO. FILE NO.
SUBJECT/REFERENCE 216-641-1771 (Fax)
SUMMARY

Questions for Ferro -

*He couldn't
answer these.
He asked for
a fax &
will get
back to me.*

- ① NPDES permit? No.
- ② Closure plan for former container storage unit?
pending
- ③ # miles to Cuyahoga River.
will find out
- ④ If spill clean-up material used, how is it
disposed of? will find out
- ⑤ Name & location of firm collect haz waste.
will find
- ⑥ How long haz waste stored in Solvent Room?
in container storage unit?
- ⑦ Who collected haz waste from container
storage unit in 1984?

ACTION REQUIRED:

CC: _____

DISCUSS W/ _____

FILE _____

AND CHRONO _____

MISC. _____

TELEPHONE LOG

INITIATED BY _____

DATE _____

TO _____

PHONE NO. _____

FILE NO. _____

SUBJECT/REFERENCE _____

SUMMARY _____

(8) Where are floor sweepings disposed of that are collected in PVC drum in Plastics Staging Area?

(9) What does wet spray booth clean?

(10) Where are spray booth filters disposed of?

(11) Dimensions of limestone sump

(12) When was limestone sump installed?

(13) Is cooling water re-circulated, or discharged?
to where?

ACTION REQUIRED:

CC: _____

DISCUSS W/

FILE _____

AND CHRONO

MISC. _____

**A.T. Kearney
Site Safety/Health
Evaluation Checklist**

Engagement Number: 6888
Project Number: ROS-25-05

1. **Site:** Ferro Corporation-Tech. Ctr **Date of VSI:** 10/1/92
Address: 7500 E. Pleasant Valley Rd. **EPA ID #:** OH0 000 817 205
Independence OHIO 44131 **Tel #:** 216-641-8580
2. **Project Contacts/Affiliations:**

Site Safety Officer: <u>Sherzen Shermak</u>	Tel #: <u>312/993-8729</u>
Work Assignment Mgr: <u>Carrie Ericson</u>	Tel #: <u>312/993-8736</u>
EPA Tech Monitor: <u>Mark Sattieberg</u>	Tel #: <u>312/353-9184</u>
State Monitor: _____	Tel #: _____
Site Contact: <u>Mr. Jo Barish</u>	Tel #: <u>216/641-8580</u>
3. **Scope of Assigned Project:**
This project includes a PA/VSI of the facility. The VSI
is addressed in this Health + Safety Plan. The VSI team
will tour the facility and do a short reconnaissance around
the site as well.
4. **Site Description: (Physical description, i.e., acreage, type of facility, environmental setting, abutters, etc.)**
The property covers approx. 10 acres and consists of two buildings
for research + data processing activities, two storage sheds (for
non-hazardous materials) and a closed drum storage area.
The remainder of the facility is covered by woods + parking.
5. **Current Site Operations/Scope: (Volume/type of materials handled, processing methods, etc.)**
The facility is a technical center, providing R&D
services + data processing for other divisions of Ferro
Corp. According to available file materials, no "products"
are produced at this facility.
6. **Previous Site Operations/Scope:**
No information exists pertaining to previous site operations.

7. **Site History:** (Known releases, injuries/exposures, pertinent compliance/enforcement actions compliance, etc.)

No information pertaining to site history exists in available file material.

8. **Current site conditions:** (Existence of any known leaking/releasing solid waste management units)

No information pertaining to site conditions exists in available file material.

9. **Hazard Inventory:**

- A. **Physical:** (Noise, heat/cold, use of explosives, construction or remediation activities, equipment/process hazards)

Standard plant safety measures to avoid hazards from equipment/processes, noise, heat & cold will be followed @ a minimum.

- B. **Biological/pathological/radiological:** (Biological waste, sewage sludge, chemical warfare materials, hospital/laboratory pathological wastes, radioactive wastes, etc.)

Standard plant safety measures will be followed at a minimum for biological/pathological wastes. Radiological wastes are not expected on site.

- C. **Chemical:** (See attached inventory classification/hazard rating form)

OSHA & standard plant safety measures will be followed at a minimum for chemical hazards.

10. Existing Safety/Health Rules:

A. Levels of Protection:

Area: <u>D or less</u>	Level: <u>D</u>
Area: _____	Level: _____
Area: _____	Level: _____
Area: _____	Level: _____

B. Equipment Listing (PPE that will be taken on VSI)

1. <u>Hard Hats</u>	7. _____
2. <u>Safety Glasses</u>	8. _____
3. <u>Gloves</u>	9. _____
4. <u>Steel-toed boots</u>	10. _____
5. <u>Full-face resp. w/ cartridge *</u>	11. _____
6. _____	12. _____

C. Specified/Modified Personal Protective Equipment

Area: _____	Level: _____
Area: _____	Level: _____
Area: _____	Level: _____
Area: _____	Level: _____

11. A. Are air supplied respiratory protection devices required for routine exposures, or as an escape device at the facility?

Yes: _____ No: X

B. Are they readily available and well maintained?

Yes: _____ No: X

C. Are there areas in the facility where oxygen deficient or immediately dangerous to human life atmospheres exist or may be expected to occur?

Yes: _____ No: X

If so, define:

* In unlikely event of an upgrade to level "C".

12. Emergency Equipment/Services:

Shower/eyewash: X Evacuation Plan (Attach copy)
if available)
Fire Extinguishers: X First Aid: X

13. Emergency Telephone Numbers:

Police/Fire: 216-524-3033 / 216-524-4001
Ambulance: 216-524-4001
Poison Control: See hospital below

A. Field Team Members

1. Carmie Ericson - ATK
2. Shereen Shermak - ATK
3.
4.
5.
6.

14. Directions to Nearest Hospital (if available)

(See Below)

Marymount Hospital

216-581-0500

12300 McCracken Rd.

77N to 480E, 1st Exit #21 Transportation Blvd

left off off-ramp

through 2 lights, 2nd stop sign McCracken, turn right

Phil - I spoke w/ the manager in charge of the lab.
 He said they had a variety of chemicals in very
 small quantities in sample bottles. NO PPE is
 required except safety glasses. CE

15. Chemical Hazard Classification/Hazard Rating Inventory

Chemical	Chemical Class ¹	Physical State ²	Waste Charact ³	Exposure Standards ⁴	Primary Hazard ⁵
Benzyl alcohol	Semi-VOC	Liquid	?? Toxic Corrosive		
MEK	Halogenated Hydrocarbon	Liquid	Toxic Inq/ Sol	200 ppm	Inh/ Inq/ con

- ¹ Aromatic hydrocarbons, halogenated aliphatic hydrocarbon, heavy metal, herbicide, organochlorine insecticide, organophosphate and carbonate insecticide, PCBs.
- ² Liquid, solid, sludge, gas/vapor.
- ³ Corrosive, ignitable, toxic, volatile, reactive, radioactive, carcinogen.
- ⁴ OSHA Permissible Exposure Limits (PELs) and/or American Conference of Governmental Industrial Hygienists Threshold Limit Values (ACGIH TLVs).
- ⁵ Toxic on inhalation, absorbed through skin, irritant to eyes, irritant to respiratory tract, irritant to skin.

Barbara Gruber
 Individual Completing Checklist

9/23/92
 Date

Phil White
 Reviewer

9/24/92
 Date

FERRO CORPORATION
CORPORATE ENVIRONMENTAL AFFAIRS DEPARTMENT

FACSIMILE NO.: 216/641-8585, EXT. 7370
OR : 216/641-1771 (24 Hours)

FACSIMILE COVER LETTER

DATE OCTOBER 13/92

TOTAL NUMBER OF PAGES, INCLUDING COVER PAGE 1

TO: CARRIE ERICSON

COMPANY: AT KEARNEY

LOCATION: _____ FAX PHONE 312-648-1939

FROM: PAUL ANEUS EXT. 7370

COMMENTS: DIRECTIONS FROM HOPKINS AIRPORT TO
FERRO TECH CENTER

- EXIT AIRPORT ONTO 237 N (LEFT)
- TAKE 480 E (YOUNGSTOWN)
- TO 77 SOUTH (AKRON)
- EXIT ON PLEASANT VALLEY RD. EAST

TO FERRO TECHNICAL CENTER
7500 E. PLEASANT VALLEY RD.
INDEPENDANCE OH
641-8580

Limited Consent/Confidentiality Claim

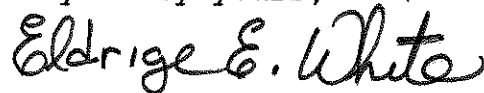
October 14, 1992

Dear Agency Inspector:

You have requested to inspect Solid Waste Management Units (as listed in your letter of September 28, 1992) of the Ferro Corporation at 7500 Pleasant Valley Road, Independence, Ohio. Ferro Corporation has agreed to this request. The inspection, however, is with the consent of Ferro Corporation only as to the area(s) specified herein. Should the scope of the inspection exceed the area(s) specified, this consent will be immediately withdrawn. Ferro Corporation hereby reserves any and all of its rights to challenge the validity of the inspection, to seek the suppression and exclusion of any and all evidence obtained directly or indirectly as a result of the inspection, to seek the dismissal of any action taken as a result of the inspection, and to seek any other relief that may be appropriate, on the grounds, among other things, that the inspection violates the rights of Ferro Corporation under the United States Constitution and the environmental laws of the United States.

Since the described area(s) contain or might reveal a trade secret, we are reserving the right to designate any information obtained in such area(s), including all photographs and samples, "confidential - trade secret," and we expect that the agency will treat them confidentially pursuant to its rules and regulations. In the event we have overlooked a confidential product or process during the present inspection, Ferro Corporation reserves the right to bring these to the agency's attention at a later date with the expectation that the agency will treat them with confidentiality.

Very truly yours,



E. E. White
Manager, Analytical
Laboratories
Ferro Corporation

Revised
February 22, 1990

TELEPHONE LOG

INITIATED BY

Carmie Enason

DATE

11/12/92

TO

Paul Angus

PHONE NO.

216-641-8580

FILE NO.

SUBJECT/REFERENCE

Re: Fax response

SUMMARY

said would go through pile
on his desk to see if
response from Tech Ctr. there
& he would get back to
me.

ACTION REQUIRED:

CC:

DISCUSS W/

FILE

AND CHRONO

MISC.

TELEPHONE LOGINITIATED BY C. EricsonDATE 10/12TO J. BarishPHONE NO. 216-641-8580

FILE NO. _____

SUBJECT/REFERENCE _____

SUMMARY

Reschedule VSIhe called yesterday, said 10/12 goodM. Sattleberg can't make itI called back today to try 10/14
he's checkingHe called back to advise 10/14
OK.ACTION REQUIRED:

CC: _____

DISCUSS W/

FILE

AND CHRONO

MISC. _____

TELEPHONE LOG

INITIATED BY

Carmie Ericson

DATE

10/12

TO

Paul Angus

PHONE NO.

FILE NO.

SUBJECT/REFERENCE

SUMMARY

Paul Angus: Ferro corp. time arrive @ tech center on Wednesday 210 641-8580 works for Joe Parish

Returned to Angus' call & advised of schedule for meeting on Wed.; asked if ok work through lunch. Said fine.

airport N Rd. 237

toward 480 E. Youngstown
to 77 S.

exit Pleasant Valley (east)

Ferro on Pleasant Valley 7500 #

ask Eldridge White or
Dave Harrison

ACTION REQUIRED:

CC:

DISCUSS W/

FILE

AND CHRONO

MISC.



October 2, 1992

FERRO CORPORATION
4150 EAST 56TH STREET
P. O. BOX 6550
CLEVELAND, OHIO 44101
TELEPHONE: (216) 641-8580
TELEX: 98-0165
FAX: (216) 641-1771

Ms. Carrie Ericson
A. T. Kearney, Inc.
222 South Riverside Plaza
Chicago, Illinois 60606

Dear Ms. Ericson:

Confirming our agreement, you and your associates will conduct a Visual Site Inspection (VSI) on Wednesday, October 14, 1992 at Ferro's Technical Center in Independence, Ohio. The VSI is authorized under the Hazardous and Solid Waste Amendments of 1984 and is intended to evaluate the potential for hazardous waste releases.


Ferro's Corporate Research/Technical Center is located at 7500 East Pleasant Valley Road in Independence, Ohio, a suburb south of Cleveland. Ferro personnel will be present to provide you a tour of the facility and assist you in your inspection. They are:

Dave Harrison - Manager, Administration
Eldrige White - Manager, Analytical Laboratories
Paul Angus - Environmental Compliance Engineer

We apologize for any inconvenience we may have caused and appreciate your cooperation in changing your schedule. The address on the letter sent to me was correct except for the Zip Code. The Zip for my address is 44105 rather than 44101.

We will have the answers to your Preliminary Information Questionnaire available for your visit. Please call if there is anything else you need for your visit.

Very truly yours,


J. D. Berish
Manager, Corporate Environmental
Affairs

JDB/ac

cc: F. Norling - U.S.E.P.A.
M. Sattelberg - U.S.E.P.A.
M. Olszewski - Corporate Legal Department
E. White - Corporate Research-Technical Center
D. Harrison - Corporate Research-Technical Center
P. Angus - Corporate Environmental Affairs

A.T. Kearney, Inc.
222 South Riverside Plaza
Chicago, Illinois 60606
312 648 0111
Facsimile 312 648 1939

Management
Consultants

Alt
Fax 216-641-8580-7370

216-641-8580

ATKEARNEY

To	<u>Mr. Barish</u>	Date	<u>9/28/92</u>
Company	<u>Ferro Corporation</u>	Fax Number	<u>216 641-1771</u>
From	<u>Carrie Ericson</u>	Number of Pages (Including this Page)	<u>11</u>
Telephone Number	<u>312 993-8736</u>	Charge Number	<u> </u>
		(group)	(job reference #)

Mr. ^{Message}Barish:

Attached is the visual site inspection notification letter. Please review the letter and give me a call if you have any questions or comments. I understand that this may be short notice for you, however, I believe that once you review the letter you will recognize that the information needs required are not extensive.

Please give me a call once you have reviewed the letter.

Regards,

Carrie Ericson

Afternoon
Oct. 1



PAGE

OF

TELEPHONE LOG

INITIATED BY

C. Ericson

DATE

9/14/92

TO

J. Barish - Ferro Corp

216-524-8580

PHONE NO.

FILE NO.

292-1080

SUBJECT/REFERENCE

RE: VSI Letter

SUMMARY

advised of impending visit &
asked if his schedule allowed for
it on Oct 1 or 2; He said looked
good for him & would accept my
VSI notification letter

ACTION REQUIRED:

CC:

DISCUSS W/

FILE

AND CHRONO

MISC.

TELEPHONE LOG

INITIATED BY

C ERICSON

DATE

9/16

TO

OEPA

PHONE NO.

216-425-9171

FILE NO.

SUBJECT/REFERENCE

Ferro Corp VSI

SUMMARY

contacted OEPA to advise of VSI &
invite their participants @ site.

Advised by Mark ~~Bee~~ Burgwin
that no ~~person~~ ~~will~~ me @
OEPA in charge of facility is not
active. then don't want to
go.

ACTION REQUIRED:

CC:

DISCUSS W/

FILE

AND CHRONO

MISC.



FERRO CORPORATION
4150 EAST 56TH STREET
P. O. BOX 6550
CLEVELAND, OHIO 44101
TELEPHONE: (216) 641-8580
TELEX: 98-0165
FAX: (216) 641-1771

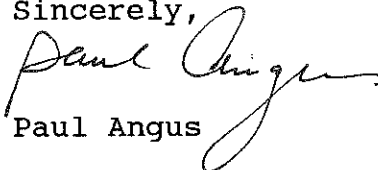
November 13, 1992

Ms. Carrie Ericson
A. T. Kearney, Inc.
222 West Adams Street
Chicago, Illinois 60606

Ms. Ericson:

Attached are responses to your list of questions submitted to this office on November 3, 1992. Also included is the additional information you requested during the visual site inspection at the Ferro Technical Center on October 14, 1992. Please call if there is any additional information required.

Sincerely,



Paul Angus

/PA

cc: J. Berish

- #1 N/A
- #2 YWC Environmental has been unable to produce any documentation. If I receive any information I will forward it to your office.
- Attached is the only documentation in our files that refers to a closure plan.
- #3 The facility is approximately 1/2 mile from the Cuyahoga River.
- #4 Spill clean-up material is disposed of along with other wastes with the same characteristics. For example, a spill of a metal bearing pigment is contained and disposed of along with other hazardous solid materials.
- #5 The two usual firms that collect our hazardous waste are:
- 1) Chemical Analytics, Inc.
Romulus, Michigan
USEPA I.D. #MID985568021
 - 2) Clean Harbours, Inc.
Quincy, Mass.
USEPA I.D. #MAD039322250
- #6 Hazardous waste is stored in the solvent room accumulation area until a full 55-gallon drum of a particular waste is generated. This can range from 1-3 months.
- As a small quantity generator, waste is removed from our container storage unit every 3-6 months.
- #7 Waste was collected from the container storage unit in 1984 by Samsel Services, 1285 Old River Road, Cleveland, Ohio 44113, USEPA I.D. #OHD017831488.
- #8 Most recently, floor sweeping material from the plastics staging area was disposed of at Ensco, El Dorado Arkansas, ARD069748192.
- #9 The wet spray booth adjacent to the settling basin is used to clean sieves, screens, pans, ball mills, etc. used in the mixing room area.
- #10 The spray booth is used to apply spray paint to various parts. The filters are therefore paper coated with air cured paint. These are disposed of along with our regular non-hazardous trash.
- #11 Limestone sump dimensions are 48"x 30"x 30" (deep).

- #12 Limestone sump was installed along with the building addition in 1984.
- #13 Most processes recirculate primary cooling water. Non-contact secondary cooling water, used to cool this primary cooling water is discharged to the sanitary sewer.
- Some extruder and all lab condenser cooling water is discharged to the sanitary sewer.

©Additional ©Information

- 1) Collector used in the maintenance shop is a Torit Cyclone dust collector - Model 19, with a 1200 CFM blower, 8" ducting, and an exit velocity of 3425 feet/minute.
- 2) The most recent company to transport the sludge from the mixing room sump was Chemical Analytics, Romulus, Michigan USEPA I.D. #MID985568021.

CORPORATE ENG
FEB 4 1983
RECEIVED

COPY

1983

HAZARDOUS WASTE STORAGE
CLOSURE PLAN

for

Ferro Corporation
Technical Center
7500 E. Pleasant Valley Rd.
Independence, Ohio 44131

February 3, 1983

All hazardous wastes that are not in shipping containers will be packaged for shipment. All wastes will then be removed from the site by an approved private hauler and taken to an approved private waste treatment facility. (All H.W. is in one of two locations: outside between the sheds or in the hallway Storage Room.)

The amount of waste to be disposed of at any time will range from 200 to 10,000 pounds. This is the total waste from both locations.

It is estimated that the cost of packaging, transfer to shipping site, shipping, disposal and site inspections would be less than \$6,000.


D. G. Harrison

DGH/dmd
2/3/83



State of Ohio Environmental Protection Agency

North East District Office
21100 Aurora Road
Twinsburg, Ohio 44087-1969
(216) 425-9171



Richard F. Celeste
Governor

CERTIFIED MAIL

May 13, 1988

RE: CUYAHOGA COUNTY
NPDES PERMIT 3IE00020
FERRO CORP., CHEMICAL DIV.
WALTON HILLS

Mr. Chet Kieleszek
Ferro Corporation
Chemical Division
7050 Krick Road
Walton Hills, Ohio 44146

Dear Mr. Kieleszek:

Mr. Robert Davic and this writer, both of Ohio EPA, met with Dennis Hammond, Mike Coker and you at your Krick Road facility on December 29, 1987. During this inspection samples were taken of water discharging from two outfalls identified as: 1) Ferro 001 effluent - outlet of oil/water separator at west end of premises. 2) Ferro PVC outfall - white pipe, located just north of the 001 effluent. This pipe was reportedly discharging groundwater seepage.

It is important to note that the white PVC outfall described above is not the same one as outfall 002 in the 5/18/87 Public Noticed NPDES Permit. Outfall 001, however, is the same as that stated in the Public Notice.

It is also important to note that the facility was not in operation except for the northern-most building (Fine Organics building). Dye was put into the interior drains in this building but the presence of dye in outfall 001 and related storm sewers was not observed.

During our visit, samples of the discharge from 001 and the PVC outfall were split with Ferro. Ohio EPA results document elevated concentrations of phenolics, BOD, sulfates, total dissolved solids, cadmium, iron and zinc. Some of the concentrations were in violation of applicable water quality standards.

From our investigation of your facility and from sample results, it is obvious that the 001 and the white PVC outfall discharge pollutants to waters of the state. As you should be aware, such discharges are not authorized by your NPDES Permit. It is requested that Ferro submit a comprehensive plan and timetable to eliminate the contamination observed in outfall 001 and the white PVC outfall, hereafter called outfall 003. This plan and timetable shall provide for expeditious determination of the source of contamination and its elimination. Elimination of the contamination should be accomplished by 12/1/88. At a minimum, the plan shall include:

Ferro Refrac- 1230 Railroad Street OHD004161295 \$ 2,071 (closure)
 tories Division E. Liverpool, OH 43920
 Porcelain Plant

2. The owner or operator identified above guarantees, through the corporate guarantee specified in Chapters 3745-55 and 3745-66 of the Administrative Code, the closure and post-closure care of the following facilities owned or operated by its subsidiaries. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility: none.

3. The owner or operator identified above owns or operates the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated to the director through the financial test or any other financial assurance mechanism specified in Chapters 3745-55 or 3745-66 of the Administrative Code. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility:

Facility Name	Address	EPA Identification No.	Current Closure and/or Post-Closure Cost Estimates
Ferro Transelco Division	P.O. Box 217 Penn Yan, NY 14527	NYD000765024	\$ 61,604 (closure and post-closure)
Ferro Composites Division	34 Smith Street P.O. Box 151 Norwalk, CT 06852	CTD001453547	\$ 43,788 (closure)
Ferro Coatings Division	1301 N. Flora Street Plymouth, IN 46563	IND052867595	\$ 53,785 (closure)

This owner or operator is required to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this owner or operator ends on December 31. The figures for the following items marked with an asterisk are derived from this owner's or operator's independently audited, year-end financial statements for the latest completed fiscal year, ended 1985.

Part A. Liability Coverage for Accidental Occurrences

ALTERNATIVE I

1. Amount of annual aggregate liability coverage to be demonstrated \$ _____

Part A Alternatives not required for your submittal

inter-office communication

to: FILE- Ferro Corp Chemical Div date: 7/12/85
from: Bill Miller
subject: Site Visit 7/10/85

I met with Mike Coker, Chet ~~Seidgel~~ Cielleszek, and Dennis Hammond, who replaces Jim Hadwood.

They recently investigated all warehouse floor drains to make sure they were plugged. They continue to haul off contaminated tank farm runoff.

They installed new piping to route all boiler blowdown to the sanitary sewer. The piping goes to a sump at the NW corner of the boiler room, then north past the tank farm dike, then

OVER →

1" W across the fence between Ferro & Bedford Anodizing. On BA's premises it ties into the same manhole that BA discharges its wastes to.

As far as the company is aware, it discharges only uncontaminated natural waters to the creek. It should be eligible for a storm water NPDES permit.

cc Bob Wysenski



Re: Hazardous Waste Activity Status
U.S. EPA I.D. No. OHD000817205
Ohio Permit No. 02-18-0219

April 5, 1985

Dr. Roy V. Harrington
Vice President Corporate Director Research
Ferro Corporation
7500 East Pleasant Valley Rd.
Independence, Ohio 44131

Dear Dr. Sarrington:

According to our records, your Ohio Hazardous Waste Installation & Operation Permit has expired. Prior to the expiration of that permit, you had informed and certified to the Ohio EPA that you no longer conducted hazardous waste activity for which a permit was required.

Therefore, this letter is to inform you that, based on the information you had submitted and an investigation by Agency staff, you will maintain the status of a generator only with less than 90 day storage.

You should continue to use the identification number assigned to you by the U.S. EPA for purposes of compliance with the Ohio EPA manifest, recordkeeping and reporting requirements for generators and transporters of hazardous waste as appropriate.

Should you have any questions concerning your current status, please contact the appropriate Ohio EPA District Office (see enclosed list).

Very truly yours,

A handwritten signature in cursive script that reads "Thomas E. Crepeau".

Thomas E. Crepeau, Manager
Data Management Section
Division of Solid and Hazardous Waste Management

TEC/ds

Enclosure

cc: U.S. EPA, Region V
HWFB
D.O.

5/6

Ohio EPA

Re: Ferro Corporation
Cuyahoga County
OHD 000-817-205
#02-18-0219
Generator

RECEIVED
NOV 30 1988
OFFICE OF RCRA
Waste Management Division
U.S. EPA, REGION V
December 14, 1984

Mr. David Harrison
Ferro Corporation
7500 East Pleasant Valley Road
Independence, Ohio 44131

Dear Mr. Harrison:

On December 3, 1984, an inspection of the Ferro Corporation Technical Center facility located at 7500 E. Pleasant Valley Road, Independence, Ohio, was conducted by myself to determine the compliance of this facility with the Ohio Hazardous Waste regulations. You represented Ferro during this inspection.


On September 24, 1984, a letter was submitted to the OEPA by Ferro expressing that the drum storage area at the above address has been closed and that Ferro wishes to operate this facility as a generator only. My RCRA inspection on January 31, 1984, noted that all hazardous waste in storage was removed on November 30, 1983 and at the time of this inspection, this facility was in compliance with the applicable Ohio generator regulations. From our conversation during this inspection, Ferro has not yet submitted a closure certification by a registered engineer. This document must be submitted to finalize closure of this facility.

This inspection indicates that currently the Ferro Corporation Technical Center is a small quantity generator of hazardous waste and is exempted from regulation under Ohio Administrative Code (OAC) 3745-51-05.

This inspection report will become a part of the official records of the Ohio Environmental Protection Agency's Division of Solid & Hazardous Waste Management.

Please feel free to contact me at (216) 425-9171 if you have any questions.

Yours truly,


Rodney Beals

Environmental Scientist
Division of Solid & Hazardous Waste Management

RB:kr

cc: ✓ Paula Cotter, DSHWM, Central Office

RECEIVED
OHIO EPA

DEC 21 1984

DIV. of SOLID & HAZ. WASTE MGT.

AKC

Ohio EPA

Re: Ferro Corporation
Cuyahoga County
OHD 000-817-205
#02-18-0219
Generator

10

Mr. David Harrison
Ferro Corporation
7500 East Pleasant Valley Road
Independence, Ohio 44131

December 14, 1984

Dear Mr. Harrison:

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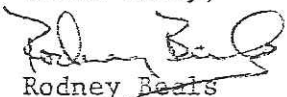
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This inspection report will become a part of the official records of the Ohio Environmental Protection Agency's Division of Solid & Hazardous Waste Management.

Please feel free to contact me at (216) 425-9171 if you have any questions.

Yours truly,



Rodney Beals
Environmental Scientist
Division of Solid & Hazardous Waste Management

RB:kr

cc: Paula Cotter, DSHWM, Central Office

Date and Time of Inspection

December 3, 1984

RCRA INTERIM STATUS INSPECTION FORM

PART 1. GENERAL INFORMATION

HWFAB 1#

U.S. EPA I.D. # OHD 000 817 205

Facility: Terre Corporation Technical Center Address: 7500 E. Pleasant Valley Road

City: Independence

State: Ohio

Zip Code: 44131

County: Cuyahoga

Telephone: (216) 641-8580

INSPECTION PARTICIPANTS(S)

(Name)

(Title)

(Telephone)

1. Daniel Harrison

Supervisor

(216) 641-8580

INSPECTOR(S)

1. Brian Bonds

Environmental Scientist

(216) 425-9171

INSTALLATION ACTIVITY

Mark One

If the site is a TSDF, check the boxes indicating which regulations are applicable.

☒ Generator only (G)

☐ Transporter (T)

☐ TSDF only

☐ G-T

☐ G-TSDF

☐ T-TSDF

☐ G-T-TSDF

☐ General Facility Standards, Preparedness and Prevention, Contingency and Emergency, Manifests/Records/Reporting, Closure

☐ Containers S01

☐ Tanks S02/T01

☐ Surface Impoundments S04/T02

☐ Incineration/Thermal Treatment

☐ Waste Piles S03

☐ Land Treatment D81

☐ Landfills D80

☐ Chemical/Physical/Biological T04

☐ Groundwater Monitoring

☐ Post-Closure.

RCRA INTERIM STATUS INSPECTION FORM

Yes	No	N/A	Reim
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

1. Has the facility submitted a Part A to Ohio?

2. If "yes", is it complete and accurate?

3. Has the facility submitted a Part B?

REMARKS, PART 1. GENERAL INFORMATION

Include a brief description of site activity and waste handling.

Ferro Corporation requested a withdrawal from their Hazardous waste Installation and Operation permit application on September 24, 1984.

A certification of closure has a registered engineer is still needed to document proper closure of the facility's drums storage area.

11/184

Date and Time of Inspection

RCRA INTERIM STATUS INSPECTION FORM

PART I. GENERAL INFORMATION

HWFAB # 02-18-0219

U.S. EPA I.D. # OH 000817205

Facility: Ferro Corporation Address: 7500 East Pleasant Valley Road City: Independence

State: Ohio Zip Code: 44131 County: Cuyahoga Telephone: (216) 641-8580

INSPECTION PARTICIPANTS(S)

(Name) (Title)

(Telephone)

1. David Harrison Supervisor (216) 641-8580

2. _____

3. _____

INSPECTOR(S)

1. Rob Beards Environmental Scientist (216) 425-9171

2. _____

3. _____

INSTALLATION ACTIVITY

If the site is a TSDF, check the boxes indicating which regulations are applicable.

Mark One

☐ Generator only (G)

☐ Transporter (T)

☐ TSDF only

☐ G-T

☒ G-TSDF

☐ T-TSDF

☐ G-T-TSDF

☐ General Facility Standards, Preparedness and Prevention, Contingency and Emergency, Manifests/Records/Reporting, Closure

☒ Containers S01

☐ Tanks S02/T01

☐ Surface Impoundments S04/T02

☐ Incineration/Thermal Treatment

☐ Waste Piles S03

☐ Land Treatment D81

☐ Landfills D80

☐ Chemical/Physical/Biological T04

☐ Groundwater Monitoring

☐ Post-Closure

RCRA INTERIM STATUS INSPECTION FORM

1. Has the facility submitted a Part A to Ohio?
2. If "yes", is it complete and accurate?
3. Has the facility submitted a Part B?

<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Remark #</u>
<u>✓</u>	<u> </u>	<u> </u>	<u> </u>
<u>✓</u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u>✓</u>	<u> </u>	<u> </u>

REMARKS, PART 1. GENERAL INFORMATION

Include a brief description of site activity and waste handling.

RCRA INTERIM STATUS INSPECTION FORM

PART 2. GENERATOR REQUIREMENTS

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Remark #</u>
1. The hazardous waste(s) generated at this facility have been tested or are acknowledged to be hazardous waste(s) as defined in Section 261 and in compliance with the requirements of Sections 262.11.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Does this facility generate any hazardous wastes that are excluded from regulation under Section 261.4 (statutory exclusions) or Section 261.6 (recycle/reuse)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. Does this facility have waste or waste treatment equipment that is excluded from regulation because of totally enclosed treatment (Section 265.1(c)(9)) or via operation of an elementary neutralization unit and/or wastewater treatment unit (Section 265.1(c)(10)).	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4. The generator meets the following requirements with respect to the preparation, use and retention of the hazardous waste manifest:				
a) The manifest form used contains all of the information required by Section 262.21(a) and (b) and the minimum number of copies required by Section 262.22.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b) The generator has designated at least one permitted disposal facility and has/will designate an alternate facility or instructions to return waste in compliance with Section 262.20.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) Prepared manifests have been signed by the generator and initial transporter in compliance with Section 262.23.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d) The generator has complied with manifest exception reporting requirements (investigate after 35 days, report after 45 days) in Section 262.42(a), (b)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
e) Signed copies of all hazardous waste manifests and any documentation required for Exception Reports are retained for at least 3 years as required by Section 262.40.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

RCRA INTERIM STATUS INSPECTION FORM

- | | <u>Yes</u> | <u>No</u> | <u>N/A</u> | <u>Remark #</u> |
|---|-------------------------------------|--------------------------|-------------------------------------|-----------------|
| 5. The generator meets the following hazardous waste pre-transport requirements: | | | | |
| a) Prior to offering hazardous wastes for transport off-site the waste material is packaged, labeled and marked in accord with applicable DOT regulations (Section 262.30, 262.31 and 262.32(a)) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| b) Prior to offering hazardous wastes for transport off-site each container with a capacity of 110 gallons (416 liters) or less is affixed with a completed hazardous waste label as required by Section 262.32(b). | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| c) The generator meets requirements for properly placarding or offering to properly placard the initial transporter of the waste material in compliance with Section 262.33. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 6. Hazardous wastes imported from or exported to foreign countries are handled in accordance with the requirements of Section 262.50. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| 7. If the generator elects to store hazardous waste on-site in containers or tanks for <u>90 days</u> or less without a RCRA storage permit as provided under Section 262.34, the following requirements with respect to such storage are met: | | | | |
| a) The containers are clearly marked with the words "Hazardous Waste". | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| b) The date that accumulation began is clearly marked on each container. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| 8. The generator has provided a Personnel Training Program in compliance with Section 265.16(a)(b)(c) including instruction in safe equipment operation and emergency response procedures, training new employees within 6 months and providing an annual training program refresher course (Section 262.34). | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 9. The generator keeps all of the records required by Section 265.16(d)(e) including written job titles, job descriptions and documented employee training records (Section 262.34). | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |

RCRA INTERIM STATUS INSPECTION FORM

NOTE : SHORT-TERM STORAGE FOR 90 DAYS OR LESS IN TANKS AND CONTAINERS ALSO REQUIRES THAT REGULATIONS IN SECTION 265, SUBPARTS C AND D (PREPAREDNESS AND PREVENTION PLUS CONTINGENCY AND EMERGENCY) AND CERTAIN PORTIONS OF THE "CONTAINERS" AND "TANKS" RULES BE MET. COMPLETE THE APPROPRIATE SECTIONS OF THE INSPECTION FORM.

REMARKS, PART 2. GENERATOR REQUIREMENTS

RCRA INTERIM STATUS INSPECTION FORM

PART 4. GENERAL INTERIM STATUS REQUIREMENTS

SUBPARTS INCLUDED

B: General Facility Standards
C: Preparedness and Prevention

D: Contingency and Emergency
E: Manifest/Records/Reporting

G: Closure
H: Financial Requirements

Subpart B: General Facility Standards

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Remark #</u>
1. The operator has a detailed chemical and physical analysis of the waste material containing all of the information which must be known to properly treat or store the waste as required by Section 265.13(a)(1).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The operator has a written waste analysis plan which describes analytical parameters, test methods, sampling methods, testing frequency and responses to any process changes that may affect the character of the waste (Section 265.13(b)).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. a) Physical contact with the waste structures or equipment will not injure unknowing/unauthorized persons or livestock entering the facility (265.14(a)(1)).	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Disturbance of the waste will not cause a violation of the hazardous waste regulations (265.14(a)(2)).	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IF BOTH 3a AND 3b ARE "YES", MARK QUESTIONS 4 AND 5 "NOT APPLICABLE".				
4. The facility has -	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a) A 24-hour surveillance system, or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) An artificial or natural barrier and a means to control entry at all times (265.14(b)(2)).	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

RCRA INTERIM STATUS INSPECTION FORM

	Yes	No	N/A	Remark #
5. The facility has a sign "Danger-Unauthorized Personnel Keep Out" at each entrance to the active portion of the facility and at other locations as necessary. (265.14(c))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. a) The operator must develop and follow a comprehensive, written inspection plan and must document the inspections, malfunctions and any remedial actions taken in an operating record log which is kept for at least three years. (265.15)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b) Areas subject to spills (i.e., loading and unloading areas, container storage areas, etc.) are inspected daily when in use and according to other applicable regulations when not actively in use. (265.15(b)(4))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. The facility has provided a Personnel Training Program in compliance with Section 265.16(a)(b)(c) including instruction in safe equipment operation and emergency response procedures, training new employees within 6 months and providing an annual training program refresher course.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. The facility keeps all records required by Section 265.16(d)(e) including written job titles, job descriptions and documented employee training records.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. If required due to the actual hazards associated with Ignitable, Reactive or incompatible waste materials, the facility meets the following requirements (Section 265.17).				
a) Protection from sources of ignition.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b) Physical separation of incompatible waste materials.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) "No Smoking" or "No Open Flames" signs near areas where Ignitable or Reactive wastes are handled.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d) Any comingling of waste materials is done in a controlled, safe manner as prescribed by Section 265.17(b).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

RCRA INTERIM STATUS INSPECTION FORM

Subpart C: Preparedness and Prevention

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Remark #</u>
1. Has there been a fire, explosion or non-planned release of hazardous waste at this facility? (265.31)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. If required due to actual hazards associated with the waste material, the facility has the following equipment: (265.32)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a) Internal alarm system.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Access to telephone, radio or other device for summoning emergency assistance.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Portable fire control equipment.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Water at adequate volume and pressure via hoses sprinkler, foamers or sprayers.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. All required safety, fire and communications equipment is tested and maintained as necessary; testing and maintenance are documented. (265.33)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. If required due to the actual hazards associated with the waste material, personnel have immediate access to an emergency communication device during times when hazardous waste is being physically handled. (265.34)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. If required due to the actual hazards associated with the waste material, adequate aisle space to allow unobstructed movement or emergency or spill control equipment is maintained. (265.35)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. If required due to the actual hazards associated with the waste material, the facility has attempted to make appropriate arrangements with local emergency service authorities to familiarize them with the possible hazards and the facility layout. (265.37(a))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Where state or local emergency service authorities have declined to enter into any proposed special arrangements or agreements the refusal has been documented. (265.37(b))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

RCRA INTERIM STATUS INSPECTION FORM

Yes No N/A Remark #

Subpart D: Contingency and Emergency

1. The facility has a written Contingency Plan designed to minimize hazards from fires, explosions or unplanned releases of hazardous wastes (265.51) and contains the following components:
 - a) Actions to be taken by personnel in the event of an emergency incident. ✓
 - b) Arrangements or agreements with local or state emergency authorities. ✓
 - c) Names, addresses and telephone numbers of all persons qualified to act as emergency coordinator. ✓
 - d) A list of all emergency equipment including location, physical description and outline of capabilities. ✓
 - e) If required due to the actual hazards associated with the waste(s) handled, an evacuation plan for facility personnel. (265.51(f)) ✓
2. A copy of the Contingency Plan and any plan revisions is maintained on-site and has been submitted to all local and state emergency service authorities that might be required to participate in the execution of the plan. (265.53) ✓
3. The plan is revised in response to facility, equipment and personnel changes or failure of the plan. (265.54) ✓
4. An emergency coordinator is designated at all times (on-site or on-call) is familiar with all aspects of site operation and emergency procedures and has the authority to implement all aspects of the Contingency Plan. (265.56) ✓
5. If an emergency situation has occurred, the emergency coordinator has implemented all or part of the Contingency Plan and has taken all of the actions and made all of the notifications deemed necessary under Sections 265.56. ✓

RCRA INTERIM STATUS INSPECTION FORM

Yes No N/A Remark #

Subpart E: Manifests/Records/Reporting

NOTE : THE FOLLOWING REQUIREMENTS ARE APPLICABLE TO BOTH ON-SITE AND OFF-SITE TREATMENT, STORAGE AND DISPOSAL FACILITIES.

1. The operator maintains a written operating record at his facility as required by Section 265.73 which contains the following information:

- | | | | |
|---|-------------------------------------|-------------|-------------|
| a) Description and quantity of each hazardous waste treated, stored or disposed of within the facility and the date(s) and method(s) pertinent to such treatment storage or disposal. (262.73(b)(1)) | <input checked="" type="checkbox"/> | <u> </u> | <u> </u> |
| b) Common name, EPA Hazardous Waste Identification Number and physical state (liquid, solid, gas) of the waste(s). | <input checked="" type="checkbox"/> | <u> </u> | <u> </u> |
| c) The estimated (or actual) weight, volume or density of the waste material(s). | <input checked="" type="checkbox"/> | <u> </u> | <u> </u> |
| d) A description of the method(s) used to treat, store or dispose of the waste(s) using the EPA Handling Codes listed in 45 FR 33252 (May 19, 1980). | <input checked="" type="checkbox"/> | <u> </u> | <u> </u> |
| e) The present physical location of each hazardous waste within the facility. | <input checked="" type="checkbox"/> | <u> </u> | <u> </u> |
| f) <u>FOR DISPOSAL FACILITIES</u> , the location and quantity of each hazardous waste recorded on a map of the facility and cross-references to any pertinent manifest document number(s). (265.73(b)(2)) | <input checked="" type="checkbox"/> | <u> </u> | <u> </u> |
| g) Records of any waste analyses and trial tests required to be performed. | <input checked="" type="checkbox"/> | <u> </u> | <u> </u> |
| h) Records of the inspections required under Section 265.15 (General Inspection Requirements - Subpart B). | <input checked="" type="checkbox"/> | <u> </u> | <u> </u> |
| i) Records of any monitoring, testing or analytical data required under other Subparts as referenced by Section 265.73(b)(6). | <input checked="" type="checkbox"/> | <u> </u> | <u> </u> |
| j) Records of Closure cost estimates and Post-Closure (DISPOSAL ONLY) cost estimates required under Subpart G. | <input checked="" type="checkbox"/> | <u> </u> | <u> </u> |

RCRA INTERIM STATUS INSPECTION FORM

2. The operators has submitted an annual Treatment-Storage-Disposal Operating Report (by March 1) containing all of the operating information required under Section 265.75.

<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Remark #</u>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

NOTE : THE FOLLOWING REQUIREMENTS ARE APPLICABLE TO ONLY OFF-SITE TREATMENT, STORAGE AND DISPOSAL FACILITIES.

3. Manifests received by the facility are signed and dated; one copy is given to the transporter, one copy is sent to the generator within 30 days and one copy is kept for at least 3 years. (265.71)

a) If shipping papers are used in lieu of manifests (bulk shipments, etc.) the same requirements are met. (265.71(b))

b) Any significant discrepancies in the manifest, as defined in Section 265.72(a) are noted in writing on the manifest document. (265.71(a)(2))

4. Any manifest discrepancies have been reconciled within 15 days as required by Section 265.72(b) or the operator has submitted the required information to the Regional Administrator/Director.

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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5. If the facility has accepted any unmanifested hazardous wastes from off-site sources (except from small quantity generators) for treatment, storage, or disposal an unmanifested waste report containing all the information required by Section 265.76 has been submitted to the Regional Administrator/Director within 15 days.

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Subpart G: Closure and Post-Closure

NOTE : THE FOLLOWING REQUIREMENTS ARE APPLICABLE TO BOTH DISPOSAL AND NON-DISPOSAL FACILITIES.

1. A written Closure Plan is on file at the facility and contains the following elements: (Section 265.112)

a) A description of how and when the facility will be closed. (265.112(a)(1)).

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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RCRA INTERIM STATUS INSPECTION FORM

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Remark #</u>
b) A description of how any of the applicable closure requirements in other Subparts of Section 265 (Tanks, Surface Impoundments, Landfill, etc.) will be carried out.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) An estimate of the maximum amount of hazardous wastes being treated or in storage at the facility. (NOTE: Maximum inventory should agree with the permit.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d) A description of steps taken to decontaminate facility equipment.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
e) The year closure is expected to begin and a schedule for the various phases of closure.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. The Closure Plan has been amended within 60 days in response to any changes in facility design, processes or closure dates.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. The Closure Plan has been submitted to the Regional Administrator/Director 180 days prior to beginning the Closure process.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Subpart H: Financial Requirements

1. The owner or operator of the facility has established financial assurance for closure by use of one of the following: (265.143)

a) A closure trust fund, or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) A surety bond, or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) A closure letter of credit, or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) A combination of financial mechanisms.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

NOTE : COMPLIANCE WITH THESE REGULATIONS IS A FEDERAL REQUIREMENT.

RCRA INTER. STATUS INSPECTION FORM

2. A written cost estimate for closure of the facility (as specified in the closure plan) is available.

<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Remark</u>
<u> / </u>	<u> </u>	<u> </u>	<u> </u>

REMARKS, PART 4. GENERAL INTERIM STATUS REQUIREMENTS

RCRA INTERIM STATUS INSPECTION FORM

PART 5. TREATMENT/STORAGE/DISPOSAL

SUBPARTS INCLUDED

I: Management of Containers	L: Waste Piles	O: Incinerators
J: Management of Tanks	M: Land Treatment	P: Thermal Treatment
K: Surface Impoundments	N: Landfills	Q: Chemical/Physical/Biological Treatment

Subpart I: Management of Containers

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Remark #</u>
1. Hazardous wastes are stored in containers which are:				
a) Closed (265.173)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) In good physical condition (265.171)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Compatible with the wastes stored in them (265.172)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Containers are stored closed except when it is necessary to add or remove wastes. (265.173(a))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Hazardous waste containers are not stored, handled or opened in a manner which may rupture the container or cause it to leak. (265.173(b))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. The area where containers are stored is inspected for evidence of leaks or corrosion at least weekly and such inspections are documented. (265.174)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Containers holding Ignitable or Reactive waste(s) are located at least 50 feet (15 meters) from the property line and the general requirements for handling such wastes in Section 265.17 (physical separation, signs and safety) are met (265.176).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Containers holding hazardous wastes are never stored near other materials which may interact with the waste in a hazardous manner. (265.177(c))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Ohio EPA

Re: Ferro Corporation
Cuyahoga County
OHD000817205
#02-18-0219
G-TSD

14

Mr. David Harrison
Ferro Corporation
Technical Center
7500 E. Pleasant Valley Road
Independence, Ohio 44131

January 31, 1984

Dear Mr. Harrison:

On January 27, 1984, I conducted an inspection of the Ferro Corporation-Technical Center facility located at 7500 E. Pleasant Valley Road, Independence, Ohio to determine compliance with the Ohio hazardous waste regulations. You represented Ferro Corporation during this inspection. A copy of the inspection report is enclosed for your information.

This inspection indicates that the Ferro Corporation-Technical Center facility appears in general compliance with the applicable Ohio hazardous waste regulations, Ohio Administrative Code (OAC) 3745-50 through 3745-68 for TSD facilities.

From our discussion during the inspection, you expressed that the Ferro Corporation-Technical Center will be withdrawing, some time this year, from a TSD facility to generator status only (possibly small quantity generator). Since the initiation of the RCRA program, your facility has generated 18 drums of spent solvents from your laboratory facility which was totally removed on November 30, 1983 to a permitted TSD for disposal. At the time of this inspection, only a partially full drum, accumulation since November 30, was in storage at the facility. At the present time, an addition is being added to your facility which will include a specially designed room for solvent storage. It is my understanding that upon completion, this room will also be used for spent solvent storage. If this is the case, at the time of withdrawal, the present permitted storage area will need to be closed and closure certified by a registered engineer. Your facility, at this time, appears in compliance of the generator only regulations.

This inspection report will become a part of the official records of the Ohio Environmental Protection Agency's Division of Hazardous Materials

Re: Ferro Corporation-Technical Center
#02-18-0219
Page 2

January 31, 1984

Management.

Please feel free to contact me at (216) 425-9171 if you have any questions.

Yours truly,

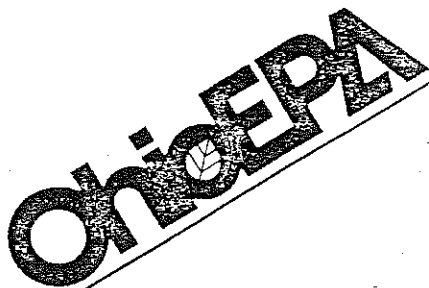
A handwritten signature in dark ink, appearing to read "Rodney Beals", written in a cursive style.

Rodney Beals
Environmental Scientist
Division of Hazardous Materials Management
Northeast District Office

RB:km

Enclosure

cc: Paula Cotter, Division of Hazardous Materials Management, Central Office



Re: Ohio Permit Renewal
Permit Expiration Date: September 24, 1984

August 14, 1984

13

Ferro Corp.
Attn: David Harrison
7500 E. Pleasant Valley
Independence

02-18-0219

OH 44131

Dear Sir or Madam:

This letter is to inform you that your Ohio Hazardous Waste Installation & Operation Permit will expire according to the terms and conditions of the permit on the date indicated above.

Enclosed please find a permit renewal application and a copy of Rule 3745-50-42 of the Ohio Administrative Code (OAC). This rule explains who may sign the permit application form according to Ohio rules. If you intend to continue hazardous waste activity which requires an Ohio hazardous waste permit at your facility, please complete and return the enclosed application form in accordance with the instructions given in this letter.

As a supplement to this application form, the Ohio EPA will soon begin the call-in of Part B applications under the provisions of OAC Rule 3745-50-40. Instructions for the Part B submittal will be provided by this Agency at that time. Therefore, formal action on your permit renewal application will be taken only after review of your Part B submittal. However, in accordance with the provisions of Sec. 119.06 of the Ohio Revised Code (ORC), your permit will continue to remain in effect until that formal action is taken, provided that you submit the enclosed renewal application form and fee prior to the expiration date of your permit.

In accordance with ORC Sec. 3734.02(E), payment of a fee in the amount of \$1,500.00 is due upon application for a hazardous waste permit. This fee is in lieu of the annual fee in the same amount which otherwise would be due on the anniversary of the issue date of the permit.

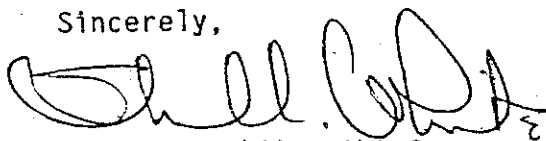
Please return the enclosed renewal application, the fee invoice card and your check in the amount of \$1,500.00 prior to the expiration date of your permit. Failure to respond in a timely manner could result in enforcement action being taken. All submittals should be sent to:

Ohio EPA
Division of Solid & Hazardous Waste Management
Attn: Data Management Section
P.O. Box 1049
Columbus, Ohio 43216

All checks should be made payable to: Treasurer, State of Ohio.

If you have any questions concerning the renewal of your hazardous waste permit or the permit fee, please contact the Data Management Section, telephone (614) 462-6731.

Sincerely,

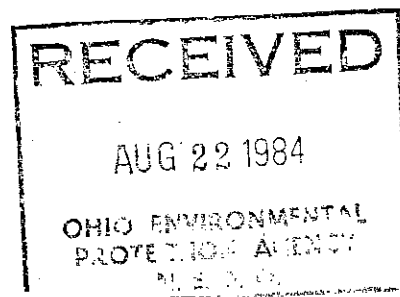


Steven H. White, Chief
Division of Solid & Hazardous Waste Management

SHW/bsr

cc: OEPA District Office

0757R





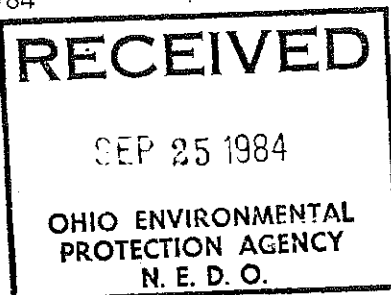
12

TECHNICAL CENTER
FERRO CORPORATION

7500 EAST PLEASANT VALLEY RD.
INDEPENDENCE, OHIO 44131 U.S.A.
TELEPHONE: (216) 641-8580
TELEX: 98-0165

September 24, 1984

Ohio EPA
Division of Solid and Hazardous
Waste Management
Attn: Data Management Section
P. O. Box 1049
Columbus, OH 43216



Re: Ohio Permit Renewal
Permit Expiration Date: Sept. 24, 1984
Permit #02-18-0219
EPA I.D. #OHD000817205

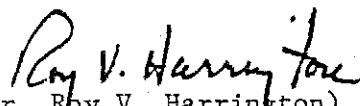
Gentlemen:

This letter is in response to your letter of August 14, 1984, and to inform you that the permitted storage area is no longer subject to storage requirements. The storage area has been closed and the certification of closure will be forwarded in the near future. The facility operates as a generator-only. Therefore, the \$1,500.00 renewal fee is not enclosed.

CERTIFICATION STATEMENT

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Permit Appl. No. 02-18-0219


(Dr. Roy V. Harrington)
Signature of Executive Officer

FERRO CORPORATION
Corporate Research-Independence

Vice President Corporate Director Research
Title

September 24, 1984

Attach: Invoice (EPA 9017)

cc: Steven H. White, Chief
Division of Solid & Hazardous
Waste Management
Ohio EPA
361 E. Broad Street
Columbus, OH 43216-1049

cc: Rodney Beals
Environmental Scientist
Division of Hazardous Matls Management
Ohio EPA
Northeast District Office
2110 E. Aurora Road
Twinsburg, OH 44087-1969

RVH:cb

<u>PERMIT NUMBER</u>	<u>FACILITY NAME</u>	<u>FACILITY LOCATION</u>	<u>AMOUNT DUE</u>
02-18-0219	Ferro Corp. Tech. Center	7500 E. Pleasant Valley Independence, OH 44131	\$1,500.00

Expires: 9-24-84

-
- PURSUANT TO SEC. 3734.02 (E) OF THE OHIO REVISED CODE, AN ANNUAL FEE IS DUE PAYABLE UPON APPLICATION AND UPON THE ANNIVERSARY OF THE DATE OF ISSUANCE DURING THE TERM OF THE HAZARDOUS WASTE INSTALLATION & OPERATION PERMIT.
 - MAKE CHECKS PAYABLE TO THE TREASURER OF THE STATE OF OHIO
 - RETURN THIS STATEMENT WITH YOUR REMITTANCE.
 - ALL QUESTIONS REGARDING THIS FEE SHOULD INCLUDE THE PERMIT NUMBER SHOWN ABOVE.

STATEMENT OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY

EPA 9017

Re: Ferro Corporation
#02-18-0219

STATUS 3

Mr. David Harrison
Ferro Corporation, Technical Center
7500 East Pleasant Valley Road
Independence, Ohio 44131

July 18, 1983

OHR 000 817 205

Dear Mr. Harrison:

On June 22, 1983, I conducted a reinspection of the Ferro Corporation, Technical Center facility located at 7500 East Pleasant Valley Road, Independence, Ohio, to determine compliance with violations noted during the March 17, 1983, RCRA inspection. You represented the Ferro Corporation during the reinspection.

With the exception of the Contingency Plan, all violations have been adequately addressed by your facility. The Contingency Plan needs amended to include the actions to be taken by personnel in the event of non-sudden releases of hazardous wastes (40 CFR 265.52 and OAC 3745-65-52).

Please forward to my attention, within the next thirty (30) days, the requested additions mentioned above for your Contingency Plan.

If you have any questions, please feel free to contact our office or Mr. James Mayka, U.S. EPA - Region V, at (312) 886-7443.

Yours truly,

Rodney Beals
Environmental Scientist
Division of Hazardous Materials Management

RB:km

cc: Paula Cotter, Div. of Hazardous Materials Management, Central Office
Ken Westlake, U.S. EPA - Region V

Re: Ferro Corporation
402-18-0219

July 18, 1983

Mr. David Harrison
Ferro Corporation, Technical Center
7500 East Pleasant Valley Road
Independence, Ohio 44131

OHF 000 817 202

Dear Mr. Harrison:

On June 22, 1983, I conducted a reinspection of the Ferro Corporation, Technical Center facility located at 7500 East Pleasant Valley Road, Independence, Ohio, to determine compliance with violations noted during the March 17, 1983, RCRA inspection. You represented the Ferro Corporation during the reinspection.

With the exception of the Contingency Plan, all violations have been adequately addressed by your facility. The Contingency Plan needs amended to include the actions to be taken by personnel in the event of non-sudden releases of hazardous wastes (40 CFR 265.52 and OAC 3745-65-52).

Please forward to my attention, within the next thirty (30) days, the requested additions mentioned above for your Contingency Plan.

If you have any questions, please feel free to contact our office or Mr. James McKay, U.S. EPA - Region V, at (312) 886-7443.

Yours truly,

Rodney Beale
Environmental Scientist
Division of Hazardous Materials Management

RB:km

cc: Paula Cotter, Div. of Hazardous Materials Management, Central Office
Ken Westlake, U.S. EPA - Region V

Letter 3



Re: Ferro Corporation
#02-18-0219

Mr. David Harrison
Ferro Corporation Technical Center
7500 East Pleasant Valley Road
Independence, Ohio 44131

April 8, 1983

OH0000817205

Dear Mr. Harrison:

On March 17, 1983, I conducted an inspection of the Ferro Corporation Technical Center facility located at 7500 East Pleasant Valley Road, Independence, Ohio, to determine compliance with both State and Federal hazardous waste regulations. You represented Ferro Corporation during this inspection. A copy of the inspection report is enclosed.

The following violations were noted during this inspection:

1. A written description of the type and amount of both introductory and continuing training that will be given to persons handling hazardous waste at your facility is needed (40 CFR 265.16 (d) and 3745-65-16 (D)).
2. To prevent possible sources of ignition, "No Smoking" signs should be conspicuously placed around your hazardous waste storage area (40 CFR 265.17 and 3745-65-17).
3. Adequate aisle space to allow the unobstructed movement of personnel for inspection purposes and spill control equipment must be maintained between drums in your hazardous waste storage area (40 CFR 265.35 and 3745-65-35).
4. Presently, the hazardous waste storage area at your facility is inspected bi-weekly. Areas where containers are stored must be inspected at least weekly, looking for leaks and deterioration (40 CFR 265.174 and 3745-66-74).
5. Revisions of your Contingency Plan are needed and should include provisions for explosions and unplanned releases of hazardous waste, a list of emergency coordinators, and a list of emergency equipment including physical descriptions and capabilities (40 CFR 265.52 and 3745-65-52).
6. A copy of your Contingency Plan must be submitted to all local and state emergency service authorities that might be required to participate in the execution of the plan (40 CFR 265.53 and 3745-65-53).

April 7, 1983

7. The Closure Plan prepared by your facility should be revised to include the expected year of closure, a schedule of closure, and a description of decontamination that will be needed (40 CFR 265.112 and 3745-66-12).
8. The written cost estimate for closure of your facility should be delineated to show the individual costs of specific steps of closure (40 CFR 265.142).

This inspection report will become a part of the official records of the Ohio Environmental Protection Agency's Division of Hazardous Materials Management and will be forwarded to Ms. Kathy Homer of the U.S. EPA - Region V. This facility will be reinspected within 60 days to determine compliance with the above violations.

Please contact our office or Ms. Kathy Homer at (312) 886-7435 if you have any questions.

Yours truly,



Rodney Beals
Environmental Scientist
Division of Hazardous Materials Management
Northeast District Office

RB:km

Enclosure

cc: Paula Cotter, DHMM, Central Office
Ken Westlake, U.S. EPA - Region V

2/2/83
Ohio EPA

040074539925

Factory Industrial Maintenance Company, Inc.
4450 Belden Village Street
Canton, Ohio 44718

April 6, 1983

Attn: Mr. Carl Talarico

Dear Sir:

On February 28, 1983, I conducted an inspection of your hazardous waste transporting operation. There were no violations of the regulations because your company has not transported any hazardous waste materials. You have obtained a PUCO number to haul hazardous waste materials. Before you begin transporting hazardous waste materials, I would recommend that you familiarize yourself with Title 40 of the Code of Federal Regulations, Part 263. This section specifies the Federal Regulations that transporters of hazardous waste must abide by.

A copy of the Transporter Interim Status Inspection Form has been enclosed for your reference.

If you have any questions, feel free to contact me at (216) 425-9171.

Sincerely,

Mark Bergman

Mark Bergman, R.S.
Environmental Scientist
Division of Hazardous Materials Management

MB:km

Enclosure

cc: Paula Cotter, DHMM, Central Office
Kathy Homer, U.S. EPA - Region V

DD

Ohio EPA

Re: Ferro Corporation
#02-18-0219

17

Mr. David Harrison
Ferro Corporation Technical Center
7500 East Pleasant Valley Road
Independence, Ohio 44131

April 8, 1983

Dear Mr. Harrison:

On March 17, 1983, I conducted an inspection of the Ferro Corporation Technical Center facility located at 7500 East Pleasant Valley Road, Independence, Ohio, to determine compliance with both State and Federal hazardous waste regulations. You represented Ferro Corporation during this inspection. A copy of the inspection report is enclosed.

The following violations were noted during this inspection:

1. A written description of the type and amount of both introductory and continuing training that will be given to persons handling hazardous waste at your facility is needed (40 CFR 265.16 (d) and 3745-65-16 (D)).
2. To prevent possible sources of ignition, "No Smoking" signs should be conspicuously placed around your hazardous waste storage area (40 CFR 265.17 and 3745-65-17).
3. Adequate aisle space to allow the unobstructed movement of personnel for inspection purposes and spill control equipment must be maintained between drums in your hazardous waste storage area (40 CFR 265.35 and 3745-65-35).
4. Presently, the hazardous waste storage area at your facility is inspected bi-weekly. Areas where containers are stored must be inspected at least weekly, looking for leaks and deterioration (40 CFR 265.174 and 3745-66-74).
5. Revisions of your Contingency Plan are needed and should include provisions for explosions and unplanned releases of hazardous waste, a list of emergency coordinators, and a list of emergency equipment including physical descriptions and capabilities (40 CFR 265.52 and 3745-65-52).
6. A copy of your Contingency Plan must be submitted to all local and state emergency service authorities that might be required to participate in the execution of the plan (40 CFR 265.53 and 3745-65-53).

April 7, 1983

7. The Closure Plan prepared by your facility should be revised to include the expected year of closure, a schedule of closure, and a description of decontamination that will be needed (40 CFR 265.112 and 3745-66-12).
8. The written cost estimate for closure of your facility should be delineated to show the individual costs of specific steps of closure (40 CFR 265.142).

This inspection report will become a part of the official records of the Ohio Environmental Protection Agency's Division of Hazardous Materials Management and will be forwarded to Ms. Kathy Homer of the U.S. EPA - Region V. This facility will be reinspected within 60 days to determine compliance with the above violations.

Please contact our office or Ms. Kathy Homer at (312) 886-7435 if you have any questions.

Yours truly,



Rodney Beals
Environmental Scientist
Division of Hazardous Materials Management
Northeast District Office

RB:km

Enclosure

cc: Paula Cotter, DHMM, Central Office
Ken Westlake, U.S. EPA - Region V

3/17/93 9:00 - 11:30
Date Time of Inspection

RCRA INTERIM STATUS INSPECTION FORM

PART 1. GENERAL INFORMATION

HWFAB # 02-18-0219

U.S. EPA I.D. # OH000017205

Facility: Ferro Corporation Technical Center Address: 7500 East Pleasant Valley Road City: Independence

State: Ohio Zip Code: 44131 County: Cuyahoga Telephone: (216) 641-8580

INSPECTION PARTICIPANTS(S)

	(Name)	(Title)	(Telephone)
1.	<u>David Harrison</u>	<u>Supervisor</u>	<u>(216) 641-8580</u>
2.			
3.			
INSPECTOR(S)			
1.	<u>Robbery Beals</u>	<u>Environmental Scientist</u>	<u>(216) 425-9171</u>
2.			
3.			

INSTALLATION ACTIVITY

If the site is a TSDF, check the boxes indicating which regulations are applicable.

Mark One		
<input type="checkbox"/>	Generator only (G)	<input type="checkbox"/> Waste Piles S03
<input type="checkbox"/>	Transporter (T)	<input type="checkbox"/> Land Treatment D81
<input type="checkbox"/>	TSDF only	<input type="checkbox"/> Landfills D80
<input type="checkbox"/>	G-T	<input type="checkbox"/> Chemical/Physical/Biological T04
<input checked="" type="checkbox"/>	G-TSDF	<input type="checkbox"/> Groundwater Monitoring
<input type="checkbox"/>	T-TSDF	<input type="checkbox"/> Post-Closure
<input type="checkbox"/>	G-T-TSDF	

RCRA INTERIM STATUS INSPECTION FORM

1. Has the facility submitted a Part A to Ohio?
2. If "yes", is it complete and accurate?
3. Has the facility submitted a Part B?

<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Remark #</u>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

REMARKS, PART 1. GENERAL INFORMATION
Include a brief description of site activity and waste handling.

This facility provides research and data processing for other divisions of Ferro Corporation. No "Products" are produced at this facility.

PART 2. GENERATOR REQUIREMENTS

	Yes	No	N/A	Remark #
1. The hazardous waste(s) generated at this facility have been tested or are acknowledged to be hazardous waste(s) as defined in Section 261 and in compliance with the requirements of Sections 262.11.	✓			
2. Does this facility generate any hazardous wastes that are excluded from regulation under Section 261.4 (statutory exclusions) or Section 261.6 (recycle/reuse)?		✓		
Does this facility have waste or waste treatment equipment that is excluded from regulation because of totally enclosed treatment (Section 265.1(c)(9)) or via operation of an elementary neutralization unit and/or wastewater treatment unit (Section 265.1(c)(10)).		✓		
4. The generator meets the following requirements with respect to the preparation, use and retention of the hazardous waste manifest:				
a) The manifest form used contains all of the information required by Section 262.21(a) and (b) and the minimum number of copies required by Section 262.22.			✓	* comment
b) The generator has designated at least one permitted disposal facility and has/will designate an alternate facility or instructions to return waste in compliance with Section 262.20.			✓	
c) Prepared manifests have been signed by the generator and initial transporter in compliance with Section 262.23.			✓	
d) The generator has complied with manifest exception reporting requirements (investigate after 35 days, report after 45 days) in Section 262.42(a), (b)			✓	
e) Signed copies of all hazardous waste manifests and any documentation required for Exception Reports are retained for at least 3 years as required by Section 262.40.			✓	

* Blank manifests at facility. No wastes have been disposed of from this facility.

RCRA INTERIM STATUS INSPECTION FORM

Yes No N/A Remark #

5. The generator meets the following hazardous waste pre-transport requirements:

a) Prior to offering hazardous wastes for transport off-site the waste material is packaged, labeled and marked in accord with applicable DOT regulations (Section 262.30, 262.31 and 262.32(a))

✓

b) Prior to offering hazardous wastes for transport off-site each container with a capacity of 110 gallons (416 liters) or less is affixed with a completed hazardous waste label as required by Section 262.32(b).

✓

c) The generator meets requirements for properly placarding or offering to properly placard the initial transporter of the waste material in compliance with Section 262.33.

✓

6. Hazardous wastes imported from or exported to foreign countries are handled in accordance with the requirements of Section 262.50.

✓

7. If the generator elects to store hazardous waste on-site in containers or tanks for 90 days or less without a RCRA storage permit as provided under Section 262.34, the following requirements with respect to such storage are met:

a) The containers are clearly marked with the words "Hazardous Waste".

✓

b) The date that accumulation began is clearly marked on each container.

✓

8. The generator has provided a Personnel Training Program in compliance with Section 265.16(a)(b)(c) including instruction in safe equipment operation and emergency response procedures, training new employees within 6 months and providing an annual training program refresher course (Section 262.34).

✓

9. The generator keeps all of the records required by Section 265.16(d)(e) including written job titles, job descriptions and documented employee training records (Section 262.34).

✓

* correct

* written description of introductory and continuing training

RCRA INTERIM ATUS INSPECTION FORM

NOTE : SHORT-TERM STORAGE FOR 90 DAYS OR LESS IN TANKS AND CONTAINERS ALSO REQUIRES THAT REGULATIONS IN SECTION 265, SUBPARTS C AND D (PREPAREDNESS AND PREVENTION PLUS CONTINGENCY AND EMERGENCY) AND CERTAIN PORTIONS OF THE "CONTAINERS" AND "TANKS" RULES BE MET. COMPLETE THE APPROPRIATE SECTIONS OF THE INSPECTION FORM.

REMARKS, PART 2. GENERATOR REQUIREMENTS

PART 4. GENERAL INTERIM STATUS REQUIREMENTS

SUBPARTS INCLUDED

B: General Facility Standards
C: Preparedness and Prevention
D: Contingency and Emergency
E: Manifest/Records/Reporting
G: Closure
H: Financial Requirements

Subpart B: General Facility Standards

	Yes	No	N/A	Remark #
1. The operator has a detailed chemical and physical analysis of the wastematerial containing all of the information which must be known to properly treat or store the waste as required by Section 265.13(a)(1).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. The operator has a written waste analysis plan which describes analytical parameters, test methods, sampling methods, testing frequency and responses to any process changes that may affect the character of the waste (Section 265.13(b)).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X comment
3. a) Physical contact with the waste structures or equipment will not injure unknowing/unauthorized persons or livestock entering the facility (265.14(a)(1)).	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
b) Disturbance of the waste will not cause a violation of the hazardous waste regulations (265.14(a)(2)).	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

IF BOTH 3a AND 3b ARE "YES", MARK QUESTIONS 4 AND 5 "NOT APPLICABLE".

4. The facility has -

a) A 24-hour surveillance system, or

b) An artificial or natural barrier and a means to control entry at all times (265.14(b)(2)).

☒ electronic surveillance
☒ comment

* Procedures used by chemists in labs for inorganic analysis of products

** Fence around hazardous waste storage area.

STATUS INSPECTION FORM

	Yes	No	N/A	Remark #
5. The facility has a sign "Danger-Unauthorized Personnel Keep Out" at each entrance to the active portion of the facility and at other locations as necessary. (265.14(c))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. a) The operator must develop and follow a comprehensive, written inspection plan and must document the inspections, malfunctions and any remedial actions taken in an operating record log which is kept for at least three years. (265.15)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b) Areas subject to spills (i.e., loading and unloading areas, container storage areas, etc.) are inspected daily when in use and according to other applicable regulations when not actively in use. (265.15(b)(4))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. The facility has provided a Personnel Training Program in compliance with Section 265.16(a)(b)(c) including instruction in safe equipment operation and emergency response procedures, training new employees within 6 months and providing an annual training program refresher course.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. The facility keeps all records required by Section 265.16(d)(e) including written job titles, job descriptions and documented employee training records.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9. If required due to the actual hazards associated with Ignitable, Reactive or incompatible waste materials, the facility meets the following requirements (Section 265.17).				
a) Protection from sources of ignition.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b) Physical separation of incompatible waste materials.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) "No Smoking" or "No Open Flames" signs near areas where Ignitable or Reactive wastes are handled.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	none
d) Any comingling of waste materials is done in a controlled, safe manner as prescribed by Section 265.17(b).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

* Sees needed in storage area

RCRA INTERIM STATUS INSPECTION FORM

Subpart D: Contingency and Emergency

	Yes	No	N/A	Remark #
1. The facility has a written Contingency Plan designed to minimize hazards from fires, explosions or unplanned releases of hazardous wastes (265.51) and contains the following components:				
a) Actions to be taken by personnel in the event of an emergency incident.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Refer to lines
b) Arrangements or agreements with local or state emergency authorities.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) Names, addresses and telephone numbers of all persons qualified to act as emergency coordinator.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
d) A list of all emergency equipment including location, physical description and outline of capabilities.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	capabilities
e) If required due to the actual hazards associated with the waste(s) handled, an evacuation plan for facility personnel. (265.51(f))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. A copy of the Contingency Plan and any plan revisions is maintained on-site and has been submitted to all local and state emergency service authorities that might be required to participate in the execution of the plan. (265.53)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. The plan is revised in response to facility, equipment and personnel changes or failure of the plan. (265.54)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
4. An emergency coordinator is designated at all times (on-site or on-call) is familiar with all aspects of site operation and emergency procedures and has the authority to implement all aspects of the Contingency Plan. (265.56)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. If an emergency situation has occurred, the emergency coordinator has implemented all or part of the Contingency Plan and has taken all of the actions and made all of the notifications deemed necessary under Sections 265.56.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

RCRA INTERIM STATUS INSPECTION FORM

Subpart C: Preparedness and Prevention

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Remark #</u>
1. Has there been a fire, explosion or non-planned release of hazardous waste at this facility? (265.31)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. If required due to actual hazards associated with the waste material, the facility has the following equipment: (265.32)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a) Internal alarm system.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Access to telephone, radio or other device for summoning emergency assistance.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Portable fire control equipment.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Water at adequate volume and pressure via hoses sprinkler, foamers or sprayers.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. All required safety, fire and communications equipment is tested and maintained as necessary; testing and maintenance are documented. (265.33)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. If required due to the actual hazards associated with the waste material, personnel have immediate access to an emergency communication device during times when hazardous waste is being physically handled. (265.34)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. If required due to the actual hazards associated with the waste material, adequate aisle space to allow unobstructed movement or emergency or spill control equipment is maintained. (265.35)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. If required due to the actual hazards associated with the waste material, the facility has attempted to make appropriate arrangements with local emergency service authorities to familiarize them with the possible hazards and the facility layout. (265.37(a))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Where state or local emergency service authorities have declined to enter into any proposed special arrangements or agreements the refusal has been documented. (265.37(b))	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

RCRA INTERIM STATUS INSPECTION FORM

Yes No N/A Remark #

Subpart E: Manifests/Records/Reporting

NOTE : THE FOLLOWING REQUIREMENTS ARE APPLICABLE TO BOTH ON-SITE AND OFF-SITE TREATMENT, STORAGE AND DISPOSAL FACILITIES.

1. The operator maintains a written operating record at his facility as required by Section 265.73 which contains the following information:

- | | | | | |
|---|-------------------------------------|---|---|------------------|
| a) Description and quantity of each hazardous waste treated, stored or disposed of within the facility and the date(s) and method(s) pertinent to such treatment storage or disposal. (262.73(b)(1)) | <input checked="" type="checkbox"/> | — | — | — |
| b) Common name, EPA Hazardous Waste Identification Number and physical state (liquid, solid, gas) of the waste(s). | <input checked="" type="checkbox"/> | — | — | — |
| c) The estimated (or actual) weight, volume or density of the waste material(s). | <input checked="" type="checkbox"/> | — | — | — |
| d) A description of the method(s) used to treat, store or dispose of the waste(s) using the EPA Handling Codes listed in 45 FR 33252 (May 19, 1980). | <input checked="" type="checkbox"/> | — | — | — |
| e) The present physical location of each hazardous waste within the facility. | <input checked="" type="checkbox"/> | — | — | — |
| f) <u>FOR DISPOSAL FACILITIES</u> , the location and quantity of each hazardous waste recorded on a map of the facility and cross-references to any pertinent manifest document number(s). (265.73(b)(2)) | <input checked="" type="checkbox"/> | — | ✓ | — |
| g) Records of any waste analyses and trial tests required to be performed. | <input checked="" type="checkbox"/> | — | — | — |
| h) Records of the inspections required under Section 265.15 (General Inspection Requirements - Subpart B). | <input checked="" type="checkbox"/> | ✓ | — | Bi-weekly |
| i) Records of any monitoring, testing or analytical data required under other Subparts as referenced by Section 265.73(b)(6). | <input checked="" type="checkbox"/> | — | — | — |
| j) Records of Closure cost estimates and Post-Closure (DISPOSAL ONLY) cost estimates required under Subpart G. | <input checked="" type="checkbox"/> | ✓ | — | Revisions needed |

RCRA INTERIM STATUS INSPECTION FORM

2. The operators has submitted an annual Treatment-Storage-Disposal Operating Report (by March 1) containing all of the operating information required under Section 265.75.

Yes No N/A Remark #

NOTE : THE FOLLOWING REQUIREMENTS ARE APPLICABLE TO ONLY OFF-SITE TREATMENT, STORAGE AND DISPOSAL FACILITIES.

3. Manifests received by the facility are signed and dated; one copy is given to the transporter, one copy is sent to the generator within 30 days and one copy is kept for at least 3 years. (265.71)

a) If shipping papers are used in lieu of manifests (bulk shipments, etc.) the same requirements are met. (265.71)(b)

b) Any significant discrepancies in the manifest, as defined in Section 265.72(a) are noted in writing on the manifest document. (265.71(a)(2))

4. Any manifest discrepancies have been reconciled within 15 days as required by Section 265.72(b) or the operator has submitted the required information to the Regional Administrator/Director.

5. If the facility has accepted any unmanifested hazardous wastes from off-site sources (except from small quantity generators) for treatment, storage, or disposal an unmanifested waste report containing all the information required by Section 265.76 has been submitted to the Regional Administrator/Director within 15 days.

Subpart G: Closure and Post-Closure

NOTE : THE FOLLOWING REQUIREMENTS ARE APPLICABLE TO BOTH DISPOSAL AND NON-DISPOSAL FACILITIES.

1. A written Closure Plan is on file at the facility and contains the following elements: (Section 265.112)

a) A description of how and when the facility will be closed. (265.112(a)(1)).

RCRA INTERII TATUS INSPECTION FORM

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Remark #</u>
b) A description of how any of the applicable closure requirements in other Subparts of Section 265 (Tanks, Surface Impoundments, Landfill, etc.) will be carried out.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) An estimate of the maximum amount of hazardous wastes being treated or in storage at the facility.(NOTE: Maximum inventory should agree with the permit.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) A description of steps taken to decontaminate facility equipment.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) The year closure is expected to begin and a schedule for the various phases of closure.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The Closure Plan has been amended within 60 days in response to any changes in facility design, processes or closure dates.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. The Closure Plan has been submitted to the Regional Administrator/Director 180 days prior to beginning the Closure process.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Subpart H: Financial Requirements

1. The owner or operator of the facility has established financial assurance for closure by use of one of the following: (265.143)

- a) A closure trust fund, or
- b) A surety bond, or
- c) A closure letter of credit, or
- d) A combination of financial mechanisms.

* Financial test

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

NOTE : COMPLIANCE WITH THESE REGULATIONS IS A FEDERAL REQUIREMENT.

RCRA INTERIM STATUS INSPECTION FORM

2. A written cost estimate for closure of the facility (as specified in the closure plan) is available.

<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Remark #</u>
<u> </u>	<u> ✓ </u>	<u> </u>	<u> </u>

REMARKS, PART 4. GENERAL INTERIM STATUS REQUIREMENTS

PART 5. TREATMENT/STORAGE/DISPOSAL

SUBPARTS INCLUDED

I: Management of Containers	L: Waste Piles	O: Incinerators
J: Management of Tanks	M: Land Treatment	P: Thermal Treatment
K: Surface Impoundments	N: Landfills	Q: Chemical/Physical/Biological Treatment

Subpart I: Management of Containers

	Yes	No	N/A	Remark #
1. Hazardous wastes are stored in containers which are:				
a) Closed (265.173)	✓	—	—	—
b) In good physical condition (265.171)	✓	—	—	—
c) Compatible with the wastes stored in them (265.172)	✓	—	—	—
2. Containers are stored closed except when it is necessary to add or remove wastes. (265.173(a))	✓	—	—	—
3. Hazardous waste containers are not stored, handled or opened in a manner which may rupture the container or cause it to leak. (265.173(b))	✓	—	—	—
4. The area where containers are stored is inspected for evidence of leaks or corrosion at least weekly and such inspections are documented. (265.174)	✓	—	—	—
5. Containers holding Ignitable or Reactive waste(s) are located at least 50 feet (15 meters) from the property line and the general requirements for handling such wastes in Section 265.17 (physical separation, signs and safety) are met (265.176).	✓	—	—	—
6. Containers holding hazardous wastes are never stored near other materials which may interact with the waste in a hazardous manner. (265.177(c))	✓	—	—	—

Blank 7

28 FEB 1983 9:00 A.M.
Date Time of Inspection

RCRA INTERIM STATUS INSPECTION FORM

PART 1. GENERAL INFORMATION

Facility: FACTORY INDUSTRIAL MAINTENANCE CO., INC. Address: 4450 BELDEN VILLAGE ST. City: CANTON

State: OHIO Zip Code: 44718 County: STARK Telephone: (216) 492-6600

U.S. EPA I.D. # OH D074539925

HMFAB #

INSPECTION PARTICIPANTS(S)

	(Name)	(Title)	(Telephone)
1.	<u>BERNIE HODGSON</u>	<u>HEAD OF OPERATIONS</u>	<u>(216) 492-6600</u>
2.			
3.			
INSPECTOR(S)			
1.	<u>MARK BERGMAN</u>	<u>CHIEF EPA</u>	<u>(216) 425-9171</u>
2.			
3.			

INSTALLATION ACTIVITY

If the site is a TSDF, check the boxes indicating which regulations are applicable.

Mark One	<input type="checkbox"/> Generator only (G)	<input type="checkbox"/> General Facility Standards, Preparedness and Prevention, Contingency and Emergency, Manifests/Records/Reporting, Closure	<input type="checkbox"/> Waste Piles S03
	<input checked="" type="checkbox"/> Transporter (T)		<input type="checkbox"/> Land Treatment D81
	<input type="checkbox"/> TSDF only		<input type="checkbox"/> Landfills D80
	<input type="checkbox"/> G-T		<input type="checkbox"/> Chemical/Physical/Biological T04
	<input type="checkbox"/> G-TSDF		<input type="checkbox"/> Groundwater Monitoring
	<input type="checkbox"/> T-TSDF		<input type="checkbox"/> Post-Closure
	<input type="checkbox"/> G-T-TSDF		

RCRA INTERIM STATUS INSPECTION FORM

1. Has the facility submitted a Part A to Ohio?
2. If "yes", is it complete and accurate?
3. Has the facility submitted a Part B?

Yes	No	N/A	Remark #
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

REMARKS, PART 1. GENERAL INFORMATION

Include a brief description of site activity and waste handling.

Factory Industrial Maintenance Company is a transportation company that services industries by transporting wastes off-site for disposal. This facility is getting into the transporting of hazardous waste materials in the future and have filed a Part A with the U.S. EPA. FIM company is only interested in transporting, no TSD operations. For insurance reasons the hazardous waste handling portion of this company will be divided into a new company, Prime Environmental Company, etc.. The Part A application will have to be updated if and when this takes place. As of this date this company has not handled any hazardous waste materials.

RCRA INTERIM STATUS INSPECTION FORM

PART 3. TRANSPORTER REQUIREMENTS

	Yes	No	N/A	Remark #
1. The entity has registered with the Public Utilities Commission of Ohio as a transporter of hazardous waste.	X			
2. The transporter has not accepted any hazardous wastes for transport unless the waste was accompanied by a manifest prepared by the generator in accordance with Section 262.				HAVE NOT MANIFESTED H.W. YET
3. The transporter has signed the manifest as required by Section 263.20(b) and has carried the manifest with the waste shipment as required by 263.20(c).			X	
4. Upon delivery of the hazardous waste to the next transporter or the designated facility, the transporter has signed the manifest as required in Section 263.20(d) and has retained a signed copy (available for inspection) for at least 3 years (263.22(a)).			X	
5. The transporter has delivered the entire quantity of hazardous waste accepted from the generator in accordance with manifest instructions; in cases where this was not possible the transporter has contacted the generator for further instructions and revised the manifest accordingly (263.21).			X	
6. If hazardous waste has been delivered to rail transporters or water transporters, the original transporter has complied with the manifest handling requirements of Section 263.20(e)(f).			X	
7. If hazardous waste has been shipped out of the country, the transporter has retained signed copies of the manifest (available for inspection for at least 3 years) indicating that the waste left the U.S.A. (263.22(c)).			X	
8. Has the transporter ever had a discharge of hazardous waste during time that the waste was under his control?			X	
a) Was immediate action taken? (Notify authorities, dike discharge) (263.30(a)).			X	

RCRA INTERIM STATUS INSPECTION FORM

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Remark #</u>
b) Were all of the notifications required by Section 263.30(c)(d) made?	<u>—</u>	<u>—</u>	<u>X</u>	<u>—</u>
c) Was the discharge cleaned up as required by Section 263.31?	<u>—</u>	<u>—</u>	<u>X</u>	<u>—</u>
9. Does the transporter store hazardous waste temporarily while they are in transit?	<u>—</u>	<u>—</u>	<u>X</u>	<u>—</u>
a) Manifested wastes are not stored for longer than 10 days ("Transfer Facility") and remain properly DOT-packaged during storage (263.12).	<u>—</u>	<u>—</u>	<u>X</u>	<u>—</u>

NOTE : TEMPORARY STORAGE IN STATIONARY TANKS IS NOT PERMITTED UNDER TRANSFER FACILITY REQUIREMENTS AND SUCH STORAGE REQUIRES A RCRA PERMIT APPLICATION AND IS SUBJECT TO INTERIM STATUS REQUIREMENTS FOR STORAGE FACILITIES. ANY TYPE OF STORAGE BY THE TRANSPORTER WHICH IS NOT SPECIFICALLY AUTHORIZED UNDER SECTION 263.12, TRANSFER FACILITY REQUIREMENTS, IS SUBJECT TO FULL RCRA REGULATION.

10. Does the transporter import hazardous waste into the United States? — — X —
11. Does the transporter mix hazardous wastes of different U.S. DOT shipping descriptions by placing them into a single container? — — X —

NOTE : A TRANSPORTER THAT IMPORTS HAZARDOUS WASTES OR MIXES WASTES AS DEFINED IN SECTION 263.10(c) BECOMES A GENERATOR AND IS SUBJECT TO THE REQUIREMENTS OF SECTION 262.

REMARKS, PART 3. TRANSPORTER REQUIREMENTS

most questions were answered with an N/A because they have yet to send any hazardous waste materials.

FORM D-1

UNIFORM IDENTIFICATION CAB CARD FOR VEHICLE
OR DRIVEAWAY OPERATION EXEMPT FROM ICC REGULATION

Operating Motor Carrier

Name of Carrier Factory Industrial Maintenance Co., Inc.

Street 4450 Belden Village Street NW

City Canton State Ohio

Vehicle

Type Truck Make Ford

* Year 1979 * Serial No. Y90AVDG9178

** State of Vehicle Registration Ohio

* Name of Owner of Vehicle EquiLease Corporation, c/o

The operation of the vehicle or conduct of the driveaway operation, described above, is exempt from regulation by the Interstate Commerce Commission under the Interstate Commerce Act, as amended, pursuant to the authority checked below:

- | | |
|---|---|
| <input type="checkbox"/> Sec. 10523 (a) | <input type="checkbox"/> Terminal Area Exemption |
| <input type="checkbox"/> Sec. 10523 (b) | <input type="checkbox"/> Terminal Area Exemption |
| <input type="checkbox"/> Sec. 10521 (a) (1) (C-E) | <input type="checkbox"/> Foreign Commerce Exemption |
| <input type="checkbox"/> Sec. 10526 (a) (1) | <input type="checkbox"/> School Bus Exemption |
| <input type="checkbox"/> Sec. 10526 (a) (2) | <input type="checkbox"/> Taxicab Exemption |
| <input type="checkbox"/> Sec. 10526 (a) (3) | <input type="checkbox"/> Hotel Exemption |
| <input type="checkbox"/> Sec. 10526 (a) (9) | <input type="checkbox"/> National Park Exemption |
| <input type="checkbox"/> Sec. 10526 (a) (4) | <input type="checkbox"/> Farm Exemption |
| <input type="checkbox"/> Sec. 10526 (b) (1) | <input type="checkbox"/> Municipal Exemption |
| <input type="checkbox"/> Sec. 10526 (b) (2) | <input type="checkbox"/> Occasional Exemption |
| <input type="checkbox"/> Sec. 10526 (b) (3) | <input type="checkbox"/> Emergency Tow Exemption |
| <input type="checkbox"/> Sec. 10526 (a) (5) | <input type="checkbox"/> Farm Cooperative Exemption |
| <input type="checkbox"/> Sec. 10526 (a) (6) | <input type="checkbox"/> Commodities Exemption |
| <input type="checkbox"/> Sec. 10526 (a) (7) | <input type="checkbox"/> Newspaper Exemption |
| <input type="checkbox"/> Sec. 10526 (a) (8) | <input type="checkbox"/> Air Transport Exemption |
| <input type="checkbox"/> Sec. 10526 (b) (1) | <input type="checkbox"/> Municipal Exemption |
| <input type="checkbox"/> Sec. 10526 (b) (2) | <input type="checkbox"/> Occasional Exemption |
| <input type="checkbox"/> Sec. 10526 (b) (3) | <input type="checkbox"/> Emergency Tow Exemption |
| <input type="checkbox"/> Specify Other Exemption | |

Such vehicle or driveaway operation has been registered in accordance with the laws of each State whose current identification stamp or number is placed on the reverse side of this card.

I, the undersigned, under penalty for false statement, do hereby certify that the above information is true and correct and that I am authorized to execute this document on behalf of the above carrier. (State penalties as prescribed by law.)

Signature [Signature] Title President

Date Executed December 20, 1982

This card expires at 12:01 A.M., February 1, 1984, or _____, whichever is earlier.

* Not applicable to driveaway operations.

** If the State of vehicle registration changes during the period this card is effective, the motor carrier shall immediately indicate the change above by marking out the name of the State listed and inserting the name of the new State of vehicle registration in lieu thereof. This change shall be initialed by an official of the motor carrier.

West Virginia	Wisconsin	Wyoming
Tennessee	Texas	Utah
Oklahoma	Oregon	Pennsylvania
New Jersey	New Mexico	New York
North Carolina	North Dakota	South Dakota
Rhode Island	South Carolina	Washington
Vermont	Virginia	

Alabama	Mississippi	Louisiana	Idaho	Connecticut	Arizona
Alaska	Missouri	Maine	Illinois	Delaware	Alaska
Montana	Nebraska	Massachusetts	Iowa	Florida	Arizona
Nevada	Michigan	Kansas	Georgia	Hawaii	Alaska
New Hampshire	Minnesota	Kentucky			

FORM D-1

UNIFORM IDENTIFICATION CARD FOR VEHICLE
OR DRIVEAWAY OPERATION EXEMPT FROM ICC REGULATION

Operating Motor Carrier

Name of Carrier Factory Industrial Maintenance Co., Inc.

Street 4450 Belden Village Street NW

City Canton State Ohio

Vehicle

Type Truck Make Ford

* Year 1981 Serial No. 1FDYY90W1BVGJ34776

** State of Vehicle Registration Ohio

* Name of Owner of Vehicle The Central Trust Company

The operation of the vehicle or conduct of the driveaway operation, described above, is exempt from regulation by the Interstate Commerce Commission under the Interstate Commerce Act, as amended, pursuant to the authority checked below:

- | | | | | |
|---|---|---|---|--|
| <input type="checkbox"/> Sec. 10523 (a) | <input type="checkbox"/> Terminal Area Exemption | <input type="checkbox"/> Sec. 10526 (a) (1) | <input type="checkbox"/> School Bus Exemption | <input type="checkbox"/> Farm Exemption |
| <input type="checkbox"/> Sec. 10523 (b) | <input type="checkbox"/> Terminal Area Exemption | <input type="checkbox"/> Sec. 10526 (a) (2) | <input type="checkbox"/> Taxicab Exemption | <input type="checkbox"/> National Park Exemption |
| <input type="checkbox"/> Sec. 10521 (a) (1) (C-E) | <input type="checkbox"/> Foreign Commerce Exemption | <input type="checkbox"/> Sec. 10526 (a) (3) | <input type="checkbox"/> Hotel Exemption | <input type="checkbox"/> Sec. 10526 (a) (4) |
| | | <input type="checkbox"/> Sec. 10526 (a) (9) | | |
| | | <input type="checkbox"/> Sec. 10526 (a) (3) | | |
| | | <input type="checkbox"/> Sec. 10526 (a) (2) | | |
| | | <input type="checkbox"/> Sec. 10526 (a) (1) | | |
| | | <input type="checkbox"/> Sec. 10526 (a) (8) | | |
| | | <input type="checkbox"/> Sec. 10526 (a) (7) | | |
| | | <input type="checkbox"/> Sec. 10526 (a) (6) | | |
| | | <input type="checkbox"/> Sec. 10526 (a) (5) | | |
| | | <input type="checkbox"/> Sec. 10526 (b) (1) | | |
| | | <input type="checkbox"/> Sec. 10526 (b) (2) | | |
| | | <input type="checkbox"/> Sec. 10526 (b) (3) | | |
| | | <input type="checkbox"/> Sec. 10526 (b) (4) | | |
| | | <input type="checkbox"/> Sec. 10526 (b) (5) | | |
| | | <input type="checkbox"/> Sec. 10526 (b) (6) | | |
| | | <input type="checkbox"/> Sec. 10526 (b) (7) | | |
| | | <input type="checkbox"/> Sec. 10526 (b) (8) | | |
| | | <input type="checkbox"/> Sec. 10526 (b) (9) | | |
| | | <input type="checkbox"/> Sec. 10526 (b) (10) | | |
| | | <input type="checkbox"/> Sec. 10526 (b) (11) | | |
| | | <input type="checkbox"/> Sec. 10526 (b) (12) | | |
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| | | <input type="checkbox"/> Sec. 10526 (b) (99) | | |
| | | <input type="checkbox"/> Sec. 10526 (b) (100) | | |

Such vehicle or driveaway operation has been registered in accordance with the laws of each State whose current identification stamp or number is placed on the reverse side of this card.
I, the undersigned, under penalty for false statement, do hereby certify that the above information is true and correct and that I am authorized to execute this document on behalf of the above carrier. (State penalties as prescribed by law.)

Signature [Signature] Title President
Date Executed December 20, 1982
This card expires at 12:01 A.M., February 1, 1984, or 19____, whichever is earlier.

* Not applicable to driveaway operations.
** If the State of vehicle registration changes during the period this card is effective, the motor carrier shall immediately indicate the change above by marking out the name of the State listed and inserting the name of the new State of vehicle registration in lieu thereof. This change shall be initialed by an official of the motor carrier.

	New Jersey	Oklahoma	Tennessee	West Virginia	
	New Mexico	Oregon	Texas	Wisconsin	
	New York	Pennsylvania	Utah	Wyoming	
	North Carolina	Rhode Island	Vermont		
	North Dakota	South Carolina	Virginia		
		South Dakota	Washington		

PUBLIC UTILITIES
 COMMISSION
OHIO
 1983
 H 003032W
 EXPIRES 1-31-84

	Connecticut	Delaware	District of Columbia	Florida	Georgia	Hawaii
	Idaho	Illinois	Indiana	Iowa	Kansas	Kentucky
	Louisiana	Maine	Maryland	Massachusetts	Michigan	Minnesota
	Mississippi	Missouri	Montana	Nebraska	Nevada	New Hampshire

RCRA INTERIM STATUS INSPECTION FORM

PART 1. GENERAL INFORMATION

U.S. EPA I.D. NO. OHIO 000817205

Facility: Ferro Corporation Technical Center Address: 7500 EAST PRESENT VALLEY ROAD City: INDIANAPOLIS
 State: OHIO Zip Code: 44113 County: Cuyahoga Telephone: (216) 641-8580
 Facility Operator: DAVID HARRISON Title: SUPERVISOR Telephone: (216) 641-8580
 Facility Owner: Ferro Corporation Address: ONE ERIEVIEW PLAZA
 City: CLEVELAND State: OHIO Zip Code: 44114 Telephone: (216) 641-8580
 Type of Ownership: ☒ Private ☐ Government State HWFAB No. 02-18-0219

Date of Inspection: 7-26-82 Time of Inspection: (Start) 9:AM (Finish) 10:30AM
 Advance Notification? ☐ No ☒ Yes:
 Weather Conditions: Sunny, warm

INSPECTION PARTICIPANT(S)

	(Name)	(Title)	(Telephone)
1.	<u>DAVID HARRISON</u>	<u>SUPERVISOR</u>	<u>(216) 641-8580</u>
2.			
3.			
4.			

RCRA INTERIM STATUS INSPECTION FORM

INSPECTOR(S)

(Name)

(Title)

(Telephone)

1. ROBERT E. RUDA ENVIRONMENTAL SCIENTIST (216) 425-9171
2. _____
3. _____
4. _____

1. Type(s) of hazardous waste site activity: A. ☒ Generation B. ☒ Storage C. _____ Treatment
D. _____ Transportation E. _____ Disposal

2. Specific hazardous wastes handled at this facility (EPA HW#):

a) Listed Wastes: F001, F002, F003, F004, F005, P011, P012, P022, P053,
P061, P100, D005, D006, D008, D009

b) Non-Listed Wastes: ☒ I D001 ☐ C D002 ☐ R D003 ☐ T D000

3. Has this facility submitted a Part A Permit Application? ☒ Yes ☐ No

4. Does this facility store, treat or dispose of any hazardous waste from any off-site domestic sources?

Yes, See Remark # ☒ No ☐

RCRA INTERIM STATUS INSPECTION FORM

5. Does this facility store, treat or dispose of any hazardous waste from any foreign sources?
_____ Yes, See Remark # _____ ☒ No
6. Does this facility transport hazardous waste materials off-site for itself or other generators?
_____ Yes, Complete Part 3 (Transp.) _____ ☒ No
- a) Applicable U.S. EPA I.D. Number OH D 000817205
- b) Ohio P.U.C.O. GR TRSF Number _____
7. A brief description of site activity:

THIS FACILITY PROVIDES THE RESEARCH AND DATA PROCESSING
FOR THE OTHER DIVISIONS OF FERRO CORPORATION. NO
"PRODUCTS" ARE PRODUCED AT THIS LOCATION

REMARKS, PART 1. (GENERAL INFORMATION)

RCRA INTERIM STATUS INSPECTION FORM

PART 2. GENERATOR REQUIREMENTS

	Yes	No	N/A	Remark #
1. The hazardous waste(s) generated at this facility have been tested or are acknowledged to be hazardous waste(s) as defined in Sections 261 and 3745-51 in compliance with the requirements of Sections 262.11 and 3745-52-11.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Does this facility generate any hazardous wastes that are excluded from regulation under Sections 261.4 and 3745-51-04 (statutory exclusions) or Sections 261.6 and 3745-51-06 (recycle/reuse)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. Does this facility have waste or waste treatment equipment that is excluded from regulation because of totally enclosed treatment (Sections 265.1(c)(9) and 3745-55-C-9 or via operation of an elementary neutralization unit and/or wastewater treatment unit (Sections 265.1(c)(10) and 3745-55-C-10).	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4. The generator meets the following requirements with respect to the preparation, use and retention of the hazardous waste manifest:				
a) The manifest form used contains all of the information required by Sections 262.21(a), (b) and 3745-52-21-A-B and the minimum number of copies required by Sections 262.22 and 3745-52-22.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I SAW A BLANK COPY. NO WASTE HAVE BEEN SHIPPED FROM THIS SITE
b) The generator has designated at least one permitted disposal facility and has/will designate an alternate facility or instructions to return waste in compliance with Sections 262.20 and 3745-52-20.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
c) Prepared manifests have been signed by the generator and initial transporter in compliance with Sections 262.23 and 3745-52-23.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
d) The generator has complied with manifest exception reporting requirements (investigate after 35 days, report after 45 days) in Sections 262.42(a), (b) and 3745-52-42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
e) Signed copies of all hazardous waste manifests and any documentation required for Exception Reports are retained for at least 3 years as required by Sections 262.40 and 3745-52-40.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	will BE. RETAINED FOR THE PERIOD ONCE THEY ARE

RCRA INTERIM STATUS INSPECTION FORM

Yes No N/A Remark #

5. The generator meets the following hazardous waste pre-transport requirements:

- a) Prior to offering hazardous wastes for transport off-site the waste material is packaged, labeled and marked in accord with applicable DOT regulations (Sections 262.30, 262.31 and 262.32(a) and 3745-52-30, 52-31, and 52-32-A). ☒
- b) Prior to offering hazardous wastes for transport off-site each container with a capacity of 110 gallons (416 Liters) or less is affixed with a completed hazardous waste label as required by Sections 262.32(b) and 3745-52-32-B. ☒ This will be done when wastes are shipped.
- c) The generator meets requirements for properly placarding or offering to properly placard the initial transporter of the waste material in compliance with Sections 262.33 and 3745-52-33. ☒

6. The generator meets the following recordkeeping and reporting requirements:

- a) The generator has submitted an annual report for all hazardous waste shipped off-site as required by Sections 262.41(a) and 3745-52-41-A-B. ☒
- b) The generator has submitted an annual report for all hazardous waste treated, stored or disposed of on-site as required by Sections 262.41(b) and 3745-52-41-C and in compliance with Sections 265.71 and 3745-55-71, when applicable. ☒

7. Hazardous wastes imported from or exported to foreign countries are handled in accordance with the requirements of Sections 262.50 and 3745-52-50. ☒

8. If the generator elects to store hazardous waste on-site in containers or tanks for 90 days or less without a RCRA storage permit as provided under Sections 262.34 and 3745-52-34, the following requirements with respect to such storage are met: ☒

- a) Containers: the waste is stored in closed containers which meet all applicable DOT pre-transport requirements for packaging, labeling and marking. ☒

RCRA INTERIM STATUS INSPECTION FORM

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Remark #</u>
b) The date that accumulation began is clearly marked on each container.	—	—	✓	—
c) The area where containers are stored is inspected for evidence of leaks or corrosion at least weekly and such inspections are documented (265.174 and 3745-56-54).	—	—	✓	—
d) Containers holding ignitable or reactive waste(s) are located at least 50 feet (15 Meters) from the property line (Sections 265.176 and 3745-56-56), and the general requirements for handling such wastes in Sections 265.17 and 3745-55-17 (physical separation, signs and safety) are met.	—	—	✓	—
e) <u>Tanks:</u> the tank(s) are operated in compliance with the safety requirements of Sections 265.17, 265.192(b), 3745-55-17 and 56-72-B and are equipped with a waste-feed cutoff or bypass system as required in Sections 265.192(d) and 3745-56-72-D.	—	—	✓	—
f) Uncovered tanks have at least 2 feet (60 cm.) of freeboard <u>unless</u> they are equipped with a spill containment system with a capacity that equals or exceeds the volume that 2 feet of freeboard would otherwise provide (265.192 (c) and 3745-56-72-C).	—	—	✓	—
g) Daily inspections are made of all systems pertinent to the proper operation of the tank: discharge and cutoff, monitoring equipment, tank level and freeboard (265.194 and 3745-56-74-A-B-C).	—	—	✓	—
h) Weekly inspections are made of all tank construction materials and containment structures (265.194 and 3745-56-74-D-E).	—	—	✓	—
9. The generator has provided a Personnel Training Program in compliance with Sections 265.16(a)(b)(c) and 3745-55-16-A-B-C including instruction in safe equipment operation and emergency response procedures, training new employees within 6 months and providing an annual training program refresher course (Sections 262.34 and 3745-52-34).	✓	—	—	—
10. The generator keeps all of the records required by Sections 265.16(d)(e) and 3745-55-16-D-E including written job titles, job descriptions and documented employee training records (Sections 262.34 and 3745-52-34).	✓	—	—	—

RCRA INTERIM STATUS INSPECTION FORM

Yes No N/A Remark #

11. Whenever a tank is permanently taken out of service or upon closure of the facility all hazardous wastes and residues are removed and properly disposed of (Sections 265.197 and 3745-56-77) as referenced in Sections 262.34 and 3745-52-34. ✓

NOTE: SHORT-TERM STORAGE FOR 90 DAYS OR LESS IN TANKS AND CONTAINERS ALSO REQUIRES THAT REGULATIONS IN SECTION 265, SUBPARTS C AND D (PREPAREDNESS AND PREVENTION PLUS CONTINGENCY AND EMERGENCY) AND 3745-55-30 THRU 37 AND 3745-55-50 THRU 70 BE MET. COMPLETE THESE SECTIONS OF THE INSPECTION FORM UNDER PART 4 - GENERAL INTERIM STATUS REQUIREMENTS.

REMARKS, PART 2. GENERATOR REQUIREMENTS

RCRA INTERIM STATUS INSPECTION FORM

PART 4. GENERAL INTERIM STATUS REQUIREMENTS

SUBPARTS INCLUDED

B: General Facility Standards
C: Preparedness and Prevention
D: Contingency and Emergency

E: Manifest/Records/Reporting
F: Ground Water Monitoring
G: Closure

H: Financial Requirements

Subpart B: General Facility Standards

	Yes	No	N/A	Remark #
1. The operator has a detailed chemical and physical analysis of the waste material containing all of the information which must be known to properly treat or store the waste as required by Sections 265.13(a)(1) and 3745-55-13-A-2.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. The operator has a written waste analysis plan which describes analytical parameters, test methods, sampling methods, testing frequency and responses to any process changes that may affect the character of the waste (Sections 265.13(b) and 3745-55-13-B).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. If required due to the actual hazards associated with the waste material, the operator has prevented unauthorized access to the active portions of the facility and has provided the following features and equipment (Sections 265.14 and 3745-55-14).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
a) 24-hour surveillance system.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b) Artificial or natural barrier completely surrounding the active portion of the facility.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) Controlled entry (gates, monitors) to the active portion of the facility at all times (265.14(2)(ii) and 3745-55-14-B-2-b).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>To the waste storage area only</i>
d) "Danger-Unauthorized Personnel Keep Out" signs at each entrance to the active portion of the facility (265.14(c) and 3745-55-14-C).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

RCRA INTERIM STATUS INSPECTION FORM

	Yes	No	N/A	Remark #
4. The operator must develop and follow a comprehensive, written inspection plan and must document the inspections, malfunctions and any remedial actions taken in an operating record log which is kept for at least three years. The plan includes the following elements: (Section 265.15 and 3745-55-15)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
a) Inspect emergency equipment.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b) Inspect monitoring equipment.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
c) Inspect security, alarm and communication devices.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d) Inspect process equipment (pipes, pumps, etc.).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
e) Inspect containment structures (dikes, curbs, etc.).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
f) Inspect facility for structural malfunctions (roof, floor, etc.).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
g) Inspect hazardous waste handling/loading areas each day used.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
h) Record of any malfunctions due to equipment or operator errors.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
i) Record of any hazardous waste discharges.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
5. The facility has provided a Personnel Training Program in compliance with Sections 265.16(a)(b)(c) and 3745-55-16-A-B-C including instruction in safe equipment operation and emergency response procedures, training new employees within 6 months and providing an annual training program refresher course.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. The facility keeps all records required by Sections 265.16(d)(e) and 3745-55-16-D-E including written job titles, job descriptions and documented employee training records.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. If required due to the actual hazards associated with Ignitable, Reactive or incompatible waste materials, the facility meets the following requirements (Sections 265.17 and 3745-55-17).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

RCRA INTERIM STATUS INSPECTION FORM

	Yes	No	N/A	Remark #
a) Protection from sources of ignition.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Physical separation of incompatible waste materials.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) "No Smoking" or "No Open Flames" signs near areas where Ignitable or Reactive wastes are handled.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Any comingling of waste materials is done in a controlled, safe manner as prescribed by Sections 265.17(b) and 3745-55-17-B.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Subpart C: Preparedness and Prevention

1. Has there been a fire, explosion or non-planned release of hazardous waste at this facility? (265.31 and 3745-55-31). ☒ ☐
2. If required due to actual hazards associated with the waste material, the facility has the following equipment: (265.32 and 3745-55-32).
 - a) Internal alarm system ☒ ☐
 - b) Access to telephone, radio or other device for summoning emergency assistance. ☒ ☐
 - c) Portable fire control equipment. ☒ ☐
 - d) Water at adequate volume and pressure via hoses sprinklers, foamers or sprayers. ☒ ☐
3. All required safety, fire and communications equipment is tested and maintained as necessary; testing and maintenance are documented. (265.33 and 3745-55-33). ☒ ☐
4. If required due to the actual hazards associated with the waste material, personnel have immediate access to an emergency communication device during times when hazardous waste is being physically handled (Sections 265.34 and 3745-55-34). ☒ ☐

RCRA INTERIM STATUS INSPECTION FORM

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Remark #</u>
5. If required due to the actual hazards associated with the waste material, adequate aisle space to allow unobstructed movement or emergency or spill control equipment is maintained (265.35 and 3745-55-35).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. If required due to the actual hazards associated with the waste material, the facility has attempted to make appropriate arrangements with local emergency service authorities to familiarize them with the possible hazards and the facility layout (265.37(a) and 3745-55-37-A).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Where state or local emergency service authorities have declined to enter into any proposed special arrangements or agreements the refusal has been documented (265.37(b) and 3745-55-37-B).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<u>Subpart D: Contingency and Emergency</u>				
1. The facility has a written Contingency Plan designed to minimize hazards from fires, explosions or unplanned releases of hazardous wastes (265.51 and 3745-55-51) and contains the following components:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
a) Actions to be taken by personnel in the event of an emergency incident.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b) Arrangements or agreements with local or state emergency authorities.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c) Names, addresses and telephone numbers of all persons qualified to act as emergency coordinator.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d) A list of all emergency equipment including location, physical description and outline of capabilities.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
e) If required due to the actual hazards associated with the waste(s) handled, an evacuation plan for facility personnel (Sections 265.51(f) and 3745-55-51-F).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. A copy of the Contingency Plan and any plan revisions is maintained on-site and has been submitted to all Local and State emergency service authorities that might be required to participate in the execution of the plan. (Sections 265.53 and 3745-55-53).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

RCRA INTERIM STATUS INSPECTION FORM

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Remark #</u>
3. The plan is revised in response to facility, equipment and personnel changes or failure of the plan (265.54 and 3745-55-54).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>as needed</u>
4. An emergency coordinator is designated at all times (on-site or on-call) is familiar with all aspects of site operation and emergency procedures and has the authority to implement all aspects of the Contingency Plan (Sections 265.55 and 3745-55-55).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
5. If an emergency situation has occurred, the emergency coordinator has implemented all or part of the Contingency Plan and has taken all of the actions and made all of the notifications deemed necessary under Sections 265.56 and 3745-55-56.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	_____

RCRA INTERIM STATUS INSPECTION FORM

See p. 4-5A

Yes No N/A Remark #

3. The plan is revised in response to facility, equipment and personnel changes or failure of the plan (265.54 and 3745-55-54).

4. An emergency coordinator is designated at all times (on-site or on-call) is familiar with all aspects of site operation and emergency procedures and has the authority to implement all aspects of the Contingency Plan (Sections 265.55 and 3745-55-55).

5. If an emergency situation has occurred, the emergency coordinator has implemented all or part of the Contingency Plan and has taken all of the actions and made all of the notifications deemed necessary under Sections 265.56 and 3745-55-56.

Subpart E: Manifests/Records/Reporting

NOTE: THE FOLLOWING REQUIREMENTS ARE APPLICABLE TO BOTH ON-SITE AND OFF-SITE TREATMENT, STORAGE AND DISPOSAL FACILITIES.

Yes No N/A Remark #

1. The operator maintains a written operating record at his facility as required by Sections 265.73 and 3745-55-73 which contains the following information:

a) Description and quantity of each hazardous waste treated, stored or disposed of within the facility and the date(s) and method(s) pertinent to such treatment storage or disposal (262.73(b) (1) and 3745-55-73-B-1).

b) Common name, EPA Hazardous Waste Identification Number and physical state (liquid, solid, gas) of the waste(s).

c) The estimated (or actual) weight, volume or density of the waste material(s).

d) A description of the method(s) used to treat, store or dispose of the waste(s) using the EPA Handling Codes listed in 45 FR 33252 (May 19, 1980).

RCRA INTERIM STATUS INSPECTION FORM

	Yes	No	N/A	Remark#
e) The present physical location of each hazardous waste within the facility.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) <u>FOR DISPOSAL FACILITIES</u> , the location and quantity of each hazardous waste recorded on a map of the facility and cross-references to any pertinent manifest document number(s) (265.73(b) (2) and 3745-55-73-B-2).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Records of any waste analyses and trial tests required to be performed.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Records of the inspections required under Sections 265.15 and 3745-55-15 (General Inspection Requirements - Subpart B).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i) Records of any monitoring, testing or analytical data required under other Subparts as referenced by Sections 265.73(b)(6) and 3745-55-73-B-6.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j) Records of Closure cost estimates and Post-Closure (DISPOSAL ONLY) cost estimates required under Subpart H and Section 3745-56-30, 32 and 34.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The operator has submitted an annual Treatment-Storage-Disposal Operating Report (by March 1) containing all of the operating information required under Sections 265.75 and 3745-55-75.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

NOTE: THIS REPORT IS NOT THE SAME AS THE REPORT REQUIRED TO BE FILED BY GENERATORS UNDER SECTIONS 262.41 AND 3745-52-41.

3. When applicable, the operator has submitted reports on releases of hazardous wastes, fires, explosions, groundwater contamination data and facility closure. (265.77 and 3745-55-77).

NOTE: THE FOLLOWING REQUIREMENTS ARE APPLICABLE TO ONLY OFF-SITE TREATMENT, STORAGE AND DISPOSAL FACILITIES.

4. Manifests received by the facility are signed and dated; one copy is given to the transporter, one copy is sent to the generator within 30 days and one copy is kept for at least 3 years (Sections 265.71 and 3745-55-71).

RCRA INTERIM STATUS INSPECTION FORM

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Remark #</u>
a) If shipping papers are used in lieu of manifests (bulk shipments, etc.) the same requirements are met (265.71(b) and 3745-55-71-B).	—	—	✓	—
b) Any significant discrepancies in the manifest, as defined in Sections 265.72(a) and 3745-55-72-A, are noted in writing on the manifest document (Sections 265.71(a)(2) and 3745-55-71-A-2).	—	—	✓	—
5. Any manifest discrepancies have been reconciled within 15 days as required by Sections 265.72(b) and 3745-55-72-B or the operator has submitted the required information to the Regional Administrator/Director.	—	—	✓	—
6. If the facility has accepted any unmanifested hazardous wastes from off-site sources (except from small quantity generators) for treatment, storage or disposal an unmanifested waste report containing all the information required by Sections 265.76 and 3745-55-76 has been submitted to the Regional Administrator/Director within 15 days.	—	—	✓	—

Subpart F: Groundwater Monitoring

NOTE: THESE REQUIREMENTS ARE APPLICABLE TO SURFACE IMPOUNDMENTS, LANDFILLS AND LAND TREATMENT FACILITIES ON AND AFTER NOVEMBER 19, 1981.

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Remark #</u>
1. The facility has implemented one or more of the following alternatives with respect to the Groundwater Monitoring requirements in Sections 265.90(a) and 3745-55-90-A:	—	—	✓	—
a) A Groundwater Monitoring System meeting the minimum requirements of Sections 265.91 and 3745-55-91 has been installed which is sampled, tested and operated in accordance with the requirements of Sections 265.92, 265.93, 265.94, 3745-55-92, -93 and -94.	—	—	✓	—

RCRA INTERIM STATUS INSPECTION FORM

Yes No N/A Remark #

b) A waiver of all or part of the Groundwater Monitoring requirements has been obtained by demonstrating a low potential for the migration of hazardous wastes and constituents in accordance with the requirements of Sections 265.90(c) and 3745-55-91-C. ✓

c) An alternate Groundwater Monitoring System Plan that was first submitted to the Regional Administrator/Director was implemented and is operated and maintained in accordance with Sections 265.90(d) and 3745-55-90-D. ✓

Subpart G: Closure and Post-Closure

NOTE: THE FOLLOWING REQUIREMENTS ARE APPLICABLE TO BOTH DISPOSAL AND NON-DISPOSAL FACILITIES:

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Remark #</u>
1. A written Closure Plan is on file at the facility and contains the following elements: (Sections 265.112 and 3745-56-03)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
a) A description of how and when the facility will be closed (265.112(a)(1) and 3745-56-03-A-1).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b) A description of how any of the applicable closure requirements in other Subparts of Sections 265 and 3745-55,-56,-57,-58 (Tanks, Surface Impoundments, Landfills, etc.) will be carried out.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
c) An estimate of the maximum amount of hazardous wastes being treated or in storage at the facility.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d) A description of steps taken to decontaminate facility equipment.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
e) The year closure is expected to begin and a list of dates over which the various phases of closure are expected to be completed.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. The Closure Plan has been amended within 60 days in response to any changes in facility design, processes or closure dates.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>will be as required</i>

RCRA INTERIM STATUS INSPECTION FORM

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Remark #</u>
3. The Closure Plan has been submitted to the Regional Administrator/Director 180 days prior to beginning the Closure process.	<u> </u>	<u> </u>	<u> </u>	<u> </u>
4. If Closure has been completed, the facility was closed in a manner which minimizes any future problems in compliance with the Closure performance standard in Sections 265.111 and 3745-56-02.	<u> </u>	<u> </u>	<u> </u>	<u> </u>
a) The facility has been closed within the time limits specified in Sections 265.113 and 3745-56-04.	<u> </u>	<u> </u>	<u> </u>	<u> </u>
b) Upon completion of Closure all facility equipment and structures were decontaminated and any hazardous residues were properly disposed of (265.114 and 3745-56-05).	<u> </u>	<u> </u>	<u> </u>	<u> </u>
c) Completion of Closure has been certified to the Regional Administrator by the Owner/Operator and an independent Professional Engineer (265.115 and 3745-56-06).	<u> </u>	<u> </u>	<u> </u>	<u> </u>
NOTE: THE FOLLOWING REQUIREMENTS ARE APPLICABLE TO <u>ONLY</u> DISPOSAL FACILITIES.				
5. A written Post-Closure Plan is on file at the facility which describes all Post-Closure activities and addresses all of the plan elements required by Sections 265.118(a) and 3745-56-08-A.	<u> </u>	<u> </u>	<u> </u>	<u> </u>
6. The Post-Closure Plan has been amended within 60 days in response to any changes in facility design or operation.	<u> </u>	<u> </u>	<u> </u>	<u> </u>
7. The Post-Closure Plan has been submitted to the Regional Administrator/Director 180 days prior to beginning Closure.	<u> </u>	<u> </u>	<u> </u>	<u> </u>
8. The Owner/Operator has submitted all of the information on prior use of the property required in Sections 265.119 and 3745-56-10 to the Local Land Authority within 90 days after Closure is completed.	<u> </u>	<u> </u>	<u> </u>	<u> </u>

RCRA INTERIM STATUS INSPECTION FORM

Yes No N/A Remark #

9. The property owner has attached a notation to the property deed or other instrument which will notify any potential purchaser that the property has been used to manage hazardous waste and future use of the property is restricted under Sections 265.117(c) and 3745-56-08-C as required in Sections 265.120 and 3745-56-10. ☒

Subpart H: Financial Requirements

1. A written cost estimate for Closure of the facility (by the methods and procedures specified in the facility Closure Plan) is available for review on and after May 19, 1981 (Sections 265.142 and 3745-56-32). ☒

NOTE: REGULATIONS PROMULGATED IN 46 FR 2877-2892 IN REGARD TO FINANCIAL REQUIREMENTS HAVE BEEN STAYED UNTIL OCTOBER 13, 1981 AND MAY BE AMENDED OR REPROPOSED AT THAT TIME.

REMARKS, PART 4. GENERAL INTERIM STATUS REQUIREMENTS

RCRA INTERIM STATUS INSPECTION FORM

PART 5. TREATMENT/STORAGE/DISPOSAL

SUBPARTS INCLUDED

I: Management of Containers
J: Management of Tanks
K: Surface Impoundments

L: Waste Piles
M: Land Treatment
N: Landfills

O: Incinerators
P: Thermal Treatment
Q: Chemical/Physical/Biological Treatment

Subpart I: Management of Containers

	Yes	No	N/A	Remark #
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1. Hazardous wastes are stored in closed containers which are in good physical condition and are compatible with the wastes stored in them (Sections 265.171, .172, .173 and 3745-56-51, -52-53).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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2. The area where containers are stored is inspected for evidence of leaks or corrosion at least weekly and such inspections are documented (265.174 and 3745-56-54).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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NOTE: FACILITIES OPTING FOR LONG TERM STORAGE ARE NOT REQUIRED TO MEET PRE-TRANSPORT LABELING REQUIREMENTS UNTIL THE CONTAINERS ARE ACTUALLY OFFERED FOR TRANSPORT AND ARE NOT REQUIRED TO AFFIX AN ACCUMULATION DATE. (SECTIONS 262 AND 3745-52)

	Yes	No	N/A	Remark #
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3. Containers holding Ignitable or Reactive waste(s) are located at least 50 feet (15 Meters) from the property line and the general requirements for handling such wastes in Sections 265.17 and 3745-55-17-B (physical separation, signs and safety) are met (265.176 and 3745-56).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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4. Incompatible waste materials are not placed in the same containers or put in contaminated containers unless it is done under completely controlled and safe conditions as specified in Sections 265.17(b) and 3745-55-17-B (Sections 265.177(a), (b) and 3745-56-57-A-B).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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RCRA INTERIM STATUS INSPECTION FORM

5. Containers holding hazardous wastes are never stored near other materials which may interact with the waste in a hazardous manner (Sections 265.177 (C) and 3745-56-57-C).

Yes No N/A Remark #

☒ ☐ ☐ ☐

logged in *correspondence*
Re: Application Number 31-HW-0219
Cuyahoga County

September 9, 1981

RECEIVED

SEP 14 1981

WASTE MANAGEMENT BRANCH
EPA, REGION V

Ohio EPA
Mr. David Harrison, Supervisor
Facility Services
Ferro Corporation Technical Center
7500 East Pleasant Valley Road
Independence, Ohio 44131

Dear Mr. Harrison:

On July ²³ 29, 1981, Ishan Eler of the U.S. EPA conducted an inspection of your facility, as part of the Hazardous Waste facility permit review process. Your facility was represented by yourself.

Enclosed are two forms. The one titled "TREATMENT, STORAGE AND DISPOSAL FACILITY" is a copy of the form used during the inspection to evaluate your facility.

The other form, "DEFICIENCY NOTIFICATION TABLE", relates to the "TREATMENT, STORAGE AND DISPOSAL FACILITY" form and specifies what action must be taken where deficiencies were noted. A mark in column four of the "DEFICIENCY NOTIFICATION TABLE" denotes a violation of current regulations or pinpoints areas which will be covered by regulations not yet effective. The capital letter codes in column four are explained on the last page of the "DEFICIENCY NOTIFICATION TABLE".

You are hereby advised that total compliance with the regulations contained in 40 CFR 265 is required as a condition of continuing interim status with the U.S. EPA. Failure to list specific deficiencies in this communication does not relieve you from the responsibility of complying with all applicable regulations.

Very truly yours,

Paul Flanigan
Paul Flanigan, P.E.
Hazardous Waste Materials Management

PF/bsr

cc: Kathleen Homer, U.S. EPA, Region V
Ishan Eler, U.S. EPA, Region V
Bill Skowronski, NEDO

CERTIFIED MAIL



Re: Application Number 81-HW-0232
Cuyahoga County

September 2, 1981

Fred L. Wells, Process Engineer
Ferro Corporation, Chemical Division
7050 Krick Road
Walton Hills, Ohio 44146

Dear Mr. Wells:

On July 23, 1981, Ihsan Eler of the U.S. EPA conducted an inspection of your facility, as part of the Hazardous Waste facility permit review process. Your facility was represented by yourself.

Enclosed are two forms. The one titled "TREATMENT, STORAGE AND DISPOSAL FACILITY" is a copy of the form used during the inspection to evaluate your facility.

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Very truly yours,

A handwritten signature in cursive script that reads "Paul Flanigan".

Paul Flanigan, P.E.
Hazardous Waste Materials Management

PF/bsr

cc: Kathleen Homer, U.S. EPA, Region V
Ihsan Eler, U.S. EPA, Region V
Bill Skowronski, NEDO

CERTIFIED MAIL



Re: Application Number 81-HW-0232
Cuyahoga County

September 2, 1981

Fred L. Wells, Process Engineer
Ferro Corporation, Chemical Division
7050 Krick Road
Walton Hills, Ohio 44146

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Very truly yours,

A handwritten signature in cursive script that reads "Paul Flanigan".

Paul Flanigan, P.E.
Hazardous Waste Materials Management

PF/bsr

cc: Kathleen Homer, U.S. EPA, Region V
Ihsan Eler, U.S. EPA, Region V
Bill Skowronski, NEDO

CERTIFIED MAIL

RCRA INSPECTION REPORT

INTERIM STATUS STANDARDS, TREATMENT, STORAGE AND DISPOSAL FACILITIES

DEFICIENCY NOTIFICATION TABLE

ISS INSPECTION

FACILITY NO. - 81-NW-0232

OWNER - 1 mo. Corp.

FACILITY NAME - Ferro Corp., Chemical Division

FACILITY LOCATION - 7050 Krick Road, Walton Hills

FACILITY CONTACT - Fred L. Wells Process Engineer

ISS INSPECTION DATE - 7/23/81

PHONE NO. - 216-641-8580

Page	COLUMN I Item No.	COLUMN II OAC Reference	COLUMN III USEPA Reference	COLUMN IV See Code Following	COLUMN V Refer To ISS Remark	COLUMN VI OEPA Use
3	III A 1	3745-55-12(A)	265.12 (A)			
	2					
	B 1	3745-55-13	265.13	B	✓	
	2	3745-55-13	265.13	B	✓	
	3	"	"	B		
	C 1	3745-55-14	265.14			
	2	"	"			
	3	"	"			
	4	"	"	B		
	D 1	3745-55-15	265.15	B		
	2	"	"	B		
	3	"	"	B		
4	4	"	"			
	5	"	"			
	6	"	"			
	7	"	"			
	8	"	"	B		
	E 1	3745-55-16	265.16	B		
	2	"	"	B		
	3	"	"	B		
	4	"	"			
	5	"	"		✓	
	6	"	"		✓	
	F 1	3745-55-17	265.17	B		
	2	"	"	B		
5	3	"	"			
	IV A	3745-55-31	265.31			
	B 1	3745-55-32	265.32			
	2	"	"			
	3	"	"	B	✓	
	C 1	3745-55-33	265.33			
	2	"	"			
	D	3745-55-34	265.34			
	E	3745-55-35	265.35	B	✓	
	V A 1	3745-55-52	265.52			

COLUMN I

COLUMN II

COLUMN III

COLUMN IV

COLUMN V

COLUMN VI

Item No.

OAC Reference

USEPA Reference

See Code
FollowingRefer To
ISS RemarkOEPA
Use

Page

V A 2

3745-55-52

265.52

B

✓

(Con't.)

3

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B

✓

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B C

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3745-55-53

265.53

C

3745-55-55

265.55

B

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3745-55-56

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VI A 1

3745-55-71

265.71

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B

3745-55-72

265.72

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C

3745-55-73

265.73

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VII

A

3745-56-03

265.112

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3745-56-32

265.142

B

3745-56-09

265.118

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3745-56-34

265.143

VIII

I

3745-56-51

265.171

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3745-56-52

265.172

B D

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3745-56-53

265.173

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3745-56-54

265.174

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3745-56-56

265.176

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3745-56-57

265.177

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J

3745-56-72

265.192

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B

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3745-56-73

265.193

B

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3745-56-74

265.194

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3745-56-78

265.198

11

7

3745-56-79

265.199

8

3745-56-78

265.198

K

3745-57-03

265.222

2

3745-57-04

265.223

3

3745-57-06

265.225

4

3745-57-07

265.226

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"

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6

3745-57-10

265.229

12

7

3745-57-11

265.230

Page	COLUMN I Item No.		COLUMN II OAC Reference	COLUMN III USEPA Reference	COLUMN IV See Code Following	COLUMN V Refer to ISS Remark	COLUMN VI OEPA USE
2	L	1	3745-57-31	265.251			
		2	3745-57-32	265.252			
		3	3745-57-33	265.258			
		4	3745-57-36	265.256			
		5	"	"			
		6	3745-57-37	265.257			
		7	3745-57-37	265.257			
13	M	1	3745-57-52	265.272			
		2	"	"			
		3	3745-57-53	265.273			
		4	3745-57-56	265.276			
		5	3745-57-58	265.278			
		6	3745-57-58	265.278			
		7	3745-57-59	265.279			
		8	3745-57-61	265.281			
		9	3745-57-62	265.282			
14	N	A	1	3745-57-72	265.302		
			2	"	"		
			3	"	"		
			4	"	"		
	B	1	3745-57-79	265.309			
		2	"	"			
	C	1	3745-56-03	265.112			
		2	"	"			
		3	"	"			
		4	3745-56-32	265.192			
	D		3745-57-82	265.312			
			3745-55-17	265.17(b)			
	E		3745-57-83	265.313			
			3745-55-17	265.17(b)			
15	F	1	3745-57-84	265.314			
		2	"	"			
		3	"	"			
		4	"	"			
	G		3745-57-85	265.315			
		O&P					
	I	B	1	3745-58-33	265.373		
			2	"	"		
			3	"	"		
			4	"	"		
16	II	A	1a	3745-58-35	265.375		
			b	"	"		
			c	"	"		
		2a	3745-58-35	265.375			
			"	"			
	B	1	"	"			
		2	"	"			
		3	"	"			
		4	"	"			
17		5	"	"			

COLUMN I

COLUMN II

COLUMN III

COLUMN IV

COLUMN V

COLUMN VI

Page	Item No.		OAC Reference	USEPA Reference	See Code Following	Refer to ISS Remark	OEPA USE
17 (Con't)	III	A	3745-58-37	265.377			
		B	"	"			
		C	"	"			
		D	"	"			
		E	"	"			
		F	"	"			
		G	"	"			
	IV	A	3745-58-42	265.382			
		2	"	"			
19	Q	1	3745-58-51	265.401			
		2	"	"			
		3	3745-58-52	265.402	B		
		4	3745-58-53	265.403			
		5	3745-58-55	265.405			
		6	3745-58-56	265.406			
20	IX	I	(A)	3745-52-40	262.40		
		(B)	1	3745-52-21	262.21		
		2	"	"			
		3	"	"			
		4	"	"			
		5	"	"	B		
		6	"	"			
		7	"	"	B		
		8	3745-50-42	122.6			
		(C)	3745-52-42	262.42			
21		1	3745-52-42	"			
		2	"	"			
		(D)	1	3745-52-42	262.42		
		2	"	"			
	2	(A)	3745-52-30	262.30			
		(B)	3745-52-31	262.31	B ?	✓	
		(C)	3745-52-33	262.33			
22	3	1	3745-52-34	262.34			
		2	"	"			
		3	3745-56-54	265.174			
		4a	3745-56-72	265.192			
		b	"	"			
		c	"	"			
		d	3745-56-74	265.184			
		e	3745-56-78	265.198			
		f	3745-56-79	265.199			
23	VI	A	3745-52-40	262.40	B		
		B	3745-52-41	262.41	B		
	VII	1a	3745-52-50	262.50			
		b	"	"			
		c	"	"			
		2	"	"			
24	X	I	3745-53-22	263.22			
		II	A	3745-53-20	263.20		
		B	"	"			
	V	A	3745-53-10	263.10			
		B	3745-53-10	"			

KEY TO CODED ITEMS (COLUMN IV)

- A. Because the inspection at this facility was conducted prior to May 19, 1981, requirements which became effective on that date were not checked. These requirements are now effective and must be met as a condition of interim status under the federal regulations and as part of the considerations for issuance of an Ohio Hazardous Waste Permit.
- B. or C. The inspection revealed a deficiency in compliance with this item, which must be satisfactorily corrected. A determination of compliance will be made in the future.
- D. The inspection revealed a violation of regulations pertaining to this item. Since the environmental consequences of this violation may be quite serious this problem must be corrected as soon as possible. We will schedule another inspection no sooner than 20 days after the date of this letter to determine if compliance has been achieved. Further steps in the permitting process will be delayed until the re-inspection.
- E. Regulations concerning this item will become effective November 19, 1981. These requirements were not addressed in the inspection, but compliance is required by November 19, in order to meet federal interim status requirements and as a part of the considerations in issuing an Ohio Hazardous Waste Permit.
- F. Inspection revealed non compliance with this item. Compliance with this item is required unless a facility has filed as a storage facility. You should either correct the deficiency listed or file an amended Part A application for a storage facility.
- G. NFPA's code requires that the tanks be located 50 feet from the property line.

STATE IDENTIFICATION NUMBER
(If Applicable)

OHID 000 817 205
EPA IDENTIFICATION NUMBER

RCRA INSPECTION REPORT - INTERIM STATUS STANDARDS
TREATMENT, STORAGE, AND DISPOSAL FACILITIES
Form A - General Facility Standards

I. General Information:

- (A) Facility Name: Ferro Corporation. Technical Center
(B) Street: 7500 East Pleasant Valley Rd.
(C) City: Independence (D) State: Ohio (E) Zip Code: 44131
(F) Phone: 216-641-8580 (G) County: Cuyahoga
(H) Operator: Ferro Corp.
(I) Street: One Erieview Plaza
(J) City: Cleveland (K) State: OHIO (L) Zip Code: 44114
(M) Phone: 216-641-8580 (N) County: Cuyahoga
(O) Owner: Same as operator
(P) Street: _____
(Q) City: _____ (R) State: _____ (S) Zip Code: _____
(T) Phone: _____ (U) County: _____
(V) Date of Inspection: 7-23-81 (W) Time of Inspection (From) 10:00 (To) 12:00
(X) Weather Conditions: Clear, sunny

(Y) Person(s) Interviewed

David B. Harrison

Title

Supervisor facility

Telephone

216-641-8580

(Z) Inspection Participants

Ihsan Eler

Agency/Title

USEPA / Chem Engr.

Telephone

312 886-7439

(AA) Preparer Information

Name

I. Eler

Agency/Title

Telephone

II. SITE ACTIVITY:

Complete sections I through VII for all treatment, storage, and/or disposal facilities. Complete the forms (in parenthesis) in section VIII corresponding to the site activities identified below:

A. Storage and/or Treatment

1. Containers (I)
2. Tanks (J)
3. Surface Impoundments (K)
4. Waste Piles (L)

B. Land Treatment (M)

C. Landfills (N)

___ D. Incineration and/or Thermal Treatment (O and P)

___ E. Chemical, Physical, and Biological Treatment (Q)

NOTE: If facility is also a generator or transporter of hazardous waste complete sections IX and X of this form as appropriate.

III. GENERAL FACILITY STANDARDS:
(Part 265 Subpart B)

	Yes	No	NI*	Remark
(A) Has the Regional Administrator been notified regarding:				
1. Receipt of hazardous waste from a foreign source?	<u> </u>	<u> X </u>	<u> </u>	
2. Facility expansion?	<u> X </u>	<u> </u>	<u> </u>	<u>may be in future</u>
(B) General Waste Analysis:				
1. Has the owner or operator obtained a detailed chemical and physical analysis of the waste?	<u> ✓ </u>	<u> </u>	<u> </u>	<u>will perform on analysis only metals and present</u>
2. Does the owner or operator have a detailed waste analysis plan on file at the facility?	<u> </u>	<u> ✓ </u>	<u> </u>	<u>Informal agreement</u>
3. Does the waste analysis plan specify procedures for inspection and analysis of each movement of hazardous waste from off-site?	<u> ✓ </u>	<u> </u>	<u> </u>	<u>Informal</u>
(C) Security - Do security measures include: (if applicable)				
1. 24-Hour surveillance?	<u> ✓ </u>	<u> </u>	<u> </u>	
2. Artificial or natural barrier around facility?	<u> ✓ </u>	<u> </u>	<u> </u>	
3. Controlled entry?	<u> ✓ </u>	<u> </u>	<u> </u>	
4. Danger sign(s) at entrance?	<u> ✓ </u>	<u> </u>	<u> </u>	
(D) Do Owner or Operator Inspections Include:				
1. Records of malfunctions?	<u> ✓ </u>	<u> </u>	<u> </u>	
2. Records of operator error?	<u> ✓ </u>	<u> </u>	<u> </u>	
3. Records of discharges?	<u> ✓ </u>	<u> </u>	<u> </u>	

Not Inspected

III. GENERAL FACILITY STANDARDS - Continued

	Yes	No	NI	Remarks
4. Inspection schedule?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Safety, emergency equipment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Security devices?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Operating and structural devices?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. Inspection log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
 (E) Do personnel training records include:				
1. Job titles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Job descriptions?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Description of training?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Records of training?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NA
5. Have facility personnel received required training by 5-19-81?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NA
6. Do new personnel receive required training within six months?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NA
 (F) If required, are the following special requirements for ignitable, reactive, or incompatible wastes addressed?				
1. Special handling?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. No smoking signs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Separation and protection from ignition sources?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

IV. PREPAREDNESS AND PREVENTION:

(Part 265 Subpart C)

) Maintenance and Operation
of Facility:

Is there any evidence of fire, explosion, or release of hazardous waste or hazardous waste constituent?

Yes	No	NI	Remarks
-----	----	----	---------

✓

(B) If required, does the facility have the following equipment:

1. Internal communications or alarm systems?

2. Telephone or 2-way radios at the scene of operations?

_____ NA _____

3. Portable fire extinguishers, fire control, spill control equipment and decontamination equipment?

_____ NA _____

Indicate the volume of water and/or foam available for fire control:

(C) Testing and Maintenance of
Emergency Equipment:

1. Has the owner or operator established testing and maintenance procedures for emergency equipment?

2. Is emergency equipment maintained in operable condition?

(D) Has owner or operator provided immediate access to internal alarms? (if needed)

_____ NA _____

(E) Is there adequate aisle space for unobstructed movement?

V. CONTINGENCY PLAN AND EMERGENCY PROCEDURES:
(Part 265 Subpart D)

Does the Contingency Plan contain the following information:

Yes No NI Remarks

1. The actions facility personnel must take to comply with §265.51 and 265.56 in response to fires, explosions, or any unplanned release of hazardous waste? (If the owner has a Spill Prevention, Control, and Countermeasures (SPCC) Plan, he needs only to amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this Part (as applicable.)

✓

spill kits

2. Arrangements agreed by local police departments, fire departments hospitals, contractors, and State and local emergency response teams to coordinate emergency services pursuant to §265.37?

✓

th

3. Names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinators?

✓

4. A list of all emergency equipment at the facility which includes the location and physical description of each item on the list and a brief outline of its capabilities?

✓

5. An evacuation plan for facility personnel where there is a possibility that evacuation could be necessary? (This plan must describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes?)

✓

Note: If waste is rendered non-reactive or non-ignitable see treatment requirements.
If not, the provisions of 40 CFR 265.17(b) apply.

	Yes	No	NI	Remarks
(E) Special Requirements for Incompatible Wastes.				
Does the owner or operator dispose of incompatible waste in separate cells? (If not, the provisions of 40 CFR 265.17(b) apply.)	_____	_____	_____	_____
(F) Special requirements for liquid waste (effective 11-19-81)				
1. Are bulk or non-containerized liquids placed in the landfill?	_____	_____	_____	_____
2. Does the landfill have a chemically and physically resistant liner system?	_____	_____	_____	_____
3. Does the landfill have a functional leachate collection system?	_____	_____	_____	_____
4. Are free liquids stabilized prior to or immediately after placement in the landfill?	_____	_____	_____	_____
(G) Special requirements for Containers (effective 11-19-81)				
Are empty containers crushed flat, shredded, or similarly reduced in volume before being buried beneath the surface of the landfill?	_____	_____	_____	_____

O and P
INCINERATION and THERMAL TREATMENT

(A) Facility Name: _____

(B) Date of Inspection: _____

I. Determination of Steady State

(A) Type of unit (i.e., type of incinerator or thermal treatment): _____

(B) Components and steady state condition:

Was each component at steady state prior to adding waste?

Component	Yes	No	NI	Remarks
1. _____	_____	_____	_____	_____
2. _____	_____	_____	_____	_____
3. _____	_____	_____	_____	_____
4. _____	_____	_____	_____	_____
5. _____	_____	_____	_____	_____

II. Waste Analysis

(A) Minimum requirements, for wastes not previously burned/treated.

	Yes	No	NI	Remarks
1. Required analyses; has an analysis been performed for the following?				
a. Heating value	_____	_____	_____	_____
b. Halogen content	_____	_____	_____	_____
c. Sulfur content	_____	_____	_____	_____

- | | Yes | No | NI | Remarks |
|--|-----|-----|-----|---------|
| 2. Has documented or written data been substituted for analysis of either: | | | | |
| a. Lead? | ___ | ___ | ___ | _____ |
| b. Mercury: | ___ | ___ | ___ | _____ |
- (B) List other paramters for which the waste is tested to enable owner or operator to establish steady state or determine the types of pollutants which may be emitted. (Note in Remarks any which you feel should be tested.)

Remarks

- | | | |
|----|-------|-------|
| 1. | _____ | _____ |
| 2. | _____ | _____ |
| 3. | _____ | _____ |
| 4. | _____ | _____ |
| 5. | _____ | _____ |

III. Monitoring and Inspections

- | | Yes | No | NI | Remarks |
|---|-----|-----|-----|---------|
| (A) Are combustion/emission control instruments monitored at least every 15 minutes? | ___ | ___ | ___ | _____ |
| (B) Is steady stte maintained or corrections attempted? | ___ | ___ | ___ | _____ |
| (C) Is stack plume observed at least hourly for normal color and opacity? | ___ | ___ | ___ | _____ |
| (D) Did any stack observations made by owner or operator show a plume different than normal?** | ___ | ___ | ___ | _____ |
| (E) If yes to D above, were corrections made to return emissions to normal apperance?** | ___ | ___ | ___ | _____ |
| (F) Are the complete unit and associated equipment inspected daily for leaks, spills, and fugitive emissions? | ___ | ___ | ___ | _____ |

**Specify in Remarks for what period of time this was checked.

(u) Are emergency shutdown controls and system alarms checked daily for proper operation?

Yes No NI Remarks

IV. Open Burning

(A) Only complete this part if the facility open burns hazardous waste.

Yes No NI Remarks

1. Does this facility burn only waste explosives? (A No answer means other hazardous waste is open-burned.)

2. If this facility open-burns waste explosives, does it burn the waste at a distance greater than or equal to the minimum specified distance (below)

Pounds of waste explosives or propellants	Minimum distance from open burning or detonation to the property of others	
0 to 100.....	204 m	670 ft
101 to 1,000.....	380 m	1,250 ft
1,001 to 10,000.....	530 m	1,730 ft
10,001 to 30,000.....	690 m	2,260 ft

Q

CHEMICAL, PHYSICAL and BIOLOGICAL TREATMENT

Facility Name: _____

Date of Inspection: _____

Yes No NI Remarks

1. Is equipment used to treat only those wastes which will not cause leakage, corrosion, or premature failure?

2. Is a continuously fed system equipped with a means of hazardous waste inflow stoppage or control (e.g., cut-off system?)

3. Has the owner or operator addressed the waste analysis requirements of 265.402?

4. Are inspection procedures followed according to 265.403?

5. Are the special requirements fulfilled for ignitable or reactive wastes?

6. Are incompatible wastes treated? (If yes, 265.17(b) applies.)

Note: EPA has temporarily suspended the applicability of the requirements of the hazardous waste regulations in 40 CFR Parts 122, 264 and 265 to owners and operators of (1) wastewater treatment tanks that receive, store, and treat wastewaters that are hazardous waste or that generate, store or treat a wastewater treatment sludge which is a hazardous waste where such wastewaters are subject to regulation under Sections 402 or 307(b) of the Clean Water Act (33 U.S.C. 1251 et seq.) and (2) neutralization tanks, transport vehicles, vessels, or containers which neutralize wastes which are hazardous only because they exhibit the corrosivity characteristics under 40 CFR §261.22, or are listed as hazardous wastes in Subpart D of 40 CFR Part 261 only for this reason.

IX

Complete this section if the owner or operator of a TSD facility also generates hazardous waste that is subsequently shipped off-site for treatment, storage, or disposal.

1. MANIFEST REQUIREMENTS

	Yes	No	NI	Remarks
(A) Does the operator have copies of the manifest available for review?	—	—	—	NA No wastes has been sent out
(B) Do the manifest forms reviewed contain the following information: (If possible, make copies of, or record information from, manifest(s) that do not contain the critical elements)				
1. Manifest document number?	—	—	—	Claims to have shipped no waste since Nov. 1980
2. Name, mailing address, telephone number, and EPA ID number of Generator	—	—	—	
3. Name and EPA ID Number of Transporter(s)?	—	—	—	
4. Name, address, and EPA ID Number Designated permitted facility and alternate facility?	—	—	—	
5. The description of the waste(s) (DOT shipping name, DOT hazard class, DOT identification number)?	—	—	—	
6. The total quantity of waste(s) and the type and number of containers loaded?	—	—	—	
7. Required certification?	—	—	—	
8. Required signatures?	—	—	—	
(C) Did the generator receive a signed copy of each manifest from the designated facility within 35 days?	—	—	—	

	Yes	No	NI	Remarks
1. If not, was an Exception Report submitted to the Regional Administrator?				
2. Was the Exception Report submitted within 45 days of the date of the waste was accepted by the initial transporter?				
(D) If an Exception Report was submitted, did it contain the following information:				
1. A legible copy of the manifest for which the generator does not have confirmation of delivery?				
2. A cover letter is signed by the generator or his representative explaining the efforts taken to locate the hazardous waste and the results of those efforts?				
(E) How many manifests were checked during the inspection?				None available
(F) Describe the generators system for tracking manifests:				None yet except
				phone call follow-ups when wastes
				are shipped

2. PRE-TRANSPORT REQUIREMENTS

(A) Is waste packaged in accordance with DOT regulations? (Required prior to movement of hazardous waste off-site)	✓			
(B) Are waste packages marked and labeled in accordance with DOT regulations concerning hazardous waste materials? (Required to movement of hazardous waste off-site)		✓		
(C) If required, are placards available to transporters of hazardous waste?			NA	

Omit Section 3 if the facility has interim status and its Part A permit application describes storage

3. On Site Accumulation

	Yes	No	NI	Remarks
1. Are containers marked with start of accumulation date?	_____	<u>✓</u>	_____	_____
2. Are the containers of hazardous waste removed from installation before they can accumulate for more than 90 days?	_____	<u>✓</u>	_____	<u>Will find a hauler</u>
3. Are wastes stored in containers managed in accordance with 40 CFR Part 265.174 and 265.176 (weekly inspections ignitable or reactive waste located at least 15 meters (50 feet) from facility's property line?	<u>✓</u>	_____	_____	_____
4. If waste are stored in tanks, are the tanks managed according to the following requirements?	<u>NA</u>	_____	_____	_____
a. Are tanks used to store only those wastes which will not cause corrosion leakage or premature failure of the tank?	_____	_____	_____	_____
b. Do uncovered tanks have at least 60 cm (2 feet) of freeboard, dikes, or other containment structures?	_____	_____	_____	_____
c. Do continuous feed systems have a waste-feed cutoff?	_____	_____	_____	_____
d. Are required daily and weekly inspections done?	_____	_____	_____	_____
e. Are reactive & ignitable wastes in tanks protected or rendered non-reactive or non-ignitable? (If waste is rendered non-reactive or non-ignitable, see treatment requirements.)	_____	_____	_____	_____
f. Are incompatible waste stored in separate tanks? (If not, the provisions of 40 CFR §265.17(b) apply.)	_____	_____	_____	_____

VI. RECORDKEEPING and REPORTING
(Part 262, Subpart D)

	Yes	No	NI	Remarks
(A) Are Manifests, Annual Reports, Exception Reports, and all test results and analyses retained for at least three years?	___	___	___	_____
(B) Has the generator submitted Annual Reports and Exception Reports as required?	___	___	___	_____

VIII. INTERNATIONAL SHIPMENTS
(Part 262, Subpart E)

	Yes	No	NI	Remarks
Has the installation imported or exported Hazardous Waste?	___	___	___	_____
(If answered Yes, complete the following as applicable.)				
1. Exporting Hazardous waste; has a generator:				
a. Notified the Administrator in writing?	___	___	___	_____
b. Obtained the signature of the foreign consignee confirming delivery of the waste(s) in the foreign country?	___	___	___	_____
c. Met the Manifest requirements?	___	___	___	_____
2. Importing Hazardous Waste; has the generator met the manifest requirements?	___	___	___	_____

X
TRANSPORTER REQUIREMENTS
40 CFR Part 263

Complete this Section if the owner or operator transports hazardous waste.

I. MANIFEST SYSTEM and RECORDKEEPING
(Subpart B)

	Yes	No	NI	Remarks
Are copies of the completed manifests of shipping paper(s) available for review and retained for three years?	—	—	—	

II. INTERNATIONAL SHIPMENTS

	Yes	No	NI	Remarks
(A) Does the transporter record on the manifest the date the waste left the U.S.?	—	—	—	
(B) Are signed completed manifest(s) on file?	—	—	—	

V. MISCELLANEOUS

	Yes	No	NI	Remarks
(A) Does transporter transport hazardous waste into the U.S. from abroad?	—	—	—	
(B) Does the transporter mix hazardous waste of different DOT shipping descriptions by placing them into a single container?	—	—	—	

NOTE: If (A) or (B) were answered "Yes" then the transporter is also a Generator and must comply with the Generator regulations.

REMARKS

Use this section to briefly describe site activities observed at the time of the inspection. Note any possible violations of Interim Status Standards.

- ① Waste Analysis plan should be developed
- ② " Compatibility - should mark & arrange containers as to their compatibility with various kinds of wastes.
- ③ Wastes are presently accumulated at the site, but they plan to obtain a waste hauler such as Cecos to take them away as required.

V. CONTINGENCY PLAN AND EMERGENCY PROCEDURES - Continued

	Yes	No	NI	Remarks
(B) Are copies of the Contingency Plan available at site and local emergency organizations?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(C) Emergency Coordinator				
1. Is the facility Emergency Coordinator identified?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Melvin Hardin (asst) Don Spindler
2. Is coordinator familiar with all aspects of site operation and emergency procedures?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Does the Emergency Coordinator have the authority to carry out the Contingency Plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(D) Emergency Procedures				
If an emergency situation has occurred at this facility, has the Emergency Coordinator followed the emergency procedures listed in 265.56?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

VI. MANIFEST SYSTEM, RECORDKEEPING, AND REPORTING (Part 265 Subpart E)

	Yes	No	NI	Remarks
(A) Use of Manifest System				
1. Does the facility follow the procedures listed in §265.71 for processing each manifest? (Particularly sending a copy of the signed manifest back to the generator within 30 days after delivery.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No waste has been sent out yet
2. Are records of past shipments retained for 3 years?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Knows reg will do as
(B) Does the owner or operator meet requirements regarding manifest discrepancies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

(C) Operating Record

	Yes	No	NI	Remarks
1. Does the owner or operator maintain an operating record as required in 265.73?		✓		Should keep records of waste.
2. Does the operating record contain the following information:				
**b. The method(s) and date(s) of each waste's treatment, storage, or disposal as required in Appendix I?				NA
c. The location and quantity of each hazardous waste within the facility?				NA
***d. A map or diagram of each cell or disposal area showing the location and quantity of each hazardous waste? (This information should be cross-referenced to specific manifest number, if waste was accompanied by a manifest.)				
e. Records and results of all waste analyses, trial tests, monitoring data, and operator inspections?				
f. Reports detailing all incidents that required implementation of the Contingency Plan?				
g. All closure and post closure costs as applicable?				

** See page 33252 of the May 19, 1980, Federal Register.

*** Only applies to disposal facilities

VII. CLOSURE AND POST CLOSURE
(Part 265 Subpart G)

	Yes	No	NI	Remarks
(A) Closure				
1. Is the facility closure plan available for inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Has this plan been submitted to the Regional Administrator	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Has closure begun?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Is the written closure cost estimate available?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(B) Post closure care and use of property				
1. Is the facility post-closure plan available for inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Has this plan been submitted to the Regional Administrator?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Has the post-closure period begun?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Is the written post-closure cost estimate available?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NA

VIII. FACILITY STANDARDS
(Part 265, Subparts I thru R)

I
USE AND MANGEMENT OF CONTAINERS

Facility Name: _____	Date of Inspection: _____
----------------------	---------------------------

	Yes	No	NI	Remarks
1. Are containers in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Are containers compatible with waste in them?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Are containers managed to prevent leaks?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Are containers inspected weekly for leaks and defects?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

	Yes	No	NI	Remarks
5. Are ignitable and reactive wastes stored at least 15 meters (50 feet) from the facility property line? (Indicate if waste is ignitable or reactive).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Are incompatible wastes stored in separate containers? (If not, the provisions of 40 CFR 265.17(b) apply.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	will label drums
7. Are containers of incompatible waste separated or protected from each other by physical barriers or sufficient distance?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	peroxides are kept separate indoors.

J
TANKS

Facility Name: _____

Date of Inspection: _____

1. Are tanks used to store only those wastes which will not cause corrosion, leakage or premature failure of the tank?				
2. Do uncovered tanks have at least 60 cm (2 feet) of freeboard, or dikes or other containment structures?				
3. Do continuous feed systems have a waste-feed cutoff?				
4. Are waste analyses done before the tanks are used to store a substantially different waste than before?				
5. Are required daily and weekly inspections done?				
6. Are reactive & ignitable wastes in tanks protected or rendered non-reactive or non-ignitable? Indicate if waste is ignitable or reactive. (If waste is rendered non-reactive or non-ignitable, see treatment requirements.)				

7. Are incompatible wastes stored in separate tanks?
(If not, the provisions of 40 CFR 265.17(b) apply.) _____

8. Has the owner or operator observed the National Fire Protection Associations buffer zone requirements for tanks containing ignitable or reactive wastes?

Tank capacity: _____ gallons

Tank diameter: _____ feet

Distance of tank from property line _____ feet

(See table 2 - 1 through 2 - 6 of NFPA's "Flammable and Combustible Liquids Code - 1977" to determine compliance.)

K
SURFACE IMPOUNDMENTS

Facility Name: _____

Date of Inspection: _____

	Yes	No	NI	Remarks
1. Do surface impoundments have at least 60 cm (2 feet) of freeboard?	_____	_____	_____	_____
2. Do earthen dikes have protective covers?	_____	_____	_____	_____
3. Are waste analyses done when the impoundment is used to store a substantially different waste than before?	_____	_____	_____	_____
4. Is the freeboard level inspected at least daily?	_____	_____	_____	_____
5. Are the dikes inspected weekly for evidence of leaks or deterioration?	_____	_____	_____	_____
6. Are reactive & ignitable wastes rendered non-reactive or non-ignitable before storage in a surface impoundment? (If waste is rendered non-reactive or non-ignitable, see treatment requirements.)	_____	_____	_____	_____

	Yes	No	NI	Remarks
7. Are incompatible wastes stored in different impoundments? (If not, the provisions of 40 CFR 265.17(b) apply.)	___	___	___	_____

L

WASTE PILES

Facility Name: _____ Date of Inspection: _____

	Yes	No	NI	Remarks
1. Are waste piles covered or protected from dispersal by wind?	___	___	___	_____
2. Is each in-coming movement of waste analyzed before being added to the waste pile?	___	___	___	_____
3. Are leachate, run-off, and run-on controlled as per the requirements of 265.253? (The effective date of this provision is Nov. 19, 1981.)	___	___	___	_____
4. Are reactive & ignitable wastes rendered non-reactive or non-ignitable before storage in a pile? Indicate if waste is ignitable or reactive. (If waste is rendered non-reactive or non-ignitable, see treatment requirements.)	___	___	___	_____
5. Are piles of reactive or ignitable waste protected from materials or conditions that might cause them to ignite or react?	___	___	___	_____
6. Are incompatible wastes stored in different piles? (If not, the provisions of 40 CFR 265.17(b) apply.)	___	___	___	_____
7. Are piles of incompatible waste protected by barriers or distance from other waste?	___	___	___	_____

*Not Inspected

LAND TREATMENT

Facility Name: _____

Date of Inspection: _____

	Yes	No	NI	Remarks
1. Is treated hazardous waste capable of biological or chemical degradation?	_____	_____	_____	_____
2. Are run-off and run-on diverted from the facility or collected (Effective date: November 19, 1981)?	_____	_____	_____	_____
3. Is waste analyzed according to 265.273?	_____	_____	_____	_____
4. If food chain crops are grown at the facility, has the owner or operator addressed the requirements of 265.276?	_____	_____	_____	_____
5. Is an unsaturated zone monitoring plan designed and implemented to detect the vertical migration of hazardous waste and provide information on the background concentrations of the hazardous waste available?	_____	_____	_____	_____
6. Does the unsaturated zone monitoring plan address the minimum information specified in 265.278?	_____	_____	_____	_____
7. Are records kept regarding application dates and rates, quantities, and locations, of all hazardous waste placed in the facility?	_____	_____	_____	_____
8. Are the special requirements fulfilled regarding land treatment of ignitable or reactive wastes? (Indicate if waste is ignitable or reactive.)	_____	_____	_____	_____
9. Are incompatible wastes land treated? (If yes, 265.17(b) applies)	_____	_____	_____	_____

LANDFILLS

Facility Name: _____

Date of Inspection: _____

Yes	No	NI	Remarks
-----	----	----	---------

(A) General Operating Requirements
Does the facility provide the following:

**1. Diversion of run-on away from active portions of the fill?

_____	_____	_____	_____
-------	-------	-------	-------

**2. Collection of run-off from active portions of the fill?

_____	_____	_____	_____
-------	-------	-------	-------

**3. Is collected run off treated?

_____	_____	_____	_____
-------	-------	-------	-------

4. Control of wind dispersal of hazardous waste?

_____	_____	_____	_____
-------	-------	-------	-------

(**Effective 11-19-81)

(B) Surveying and Recordkeeping
Does the Operating Record Include:

1. A map showing the exact location and dimensions of each cell?

_____	_____	_____	_____
-------	-------	-------	-------

2. The contents of each cell and the location of each hazardous waste type within each cell?

_____	_____	_____	_____
-------	-------	-------	-------

(C) Closure and Post-Closure

1. Is the Closure Plan available?

_____	_____	_____	_____
-------	-------	-------	-------

2. Has this plan been submitted to the Regional Administrator?

_____	_____	_____	_____
-------	-------	-------	-------

3. Has closure begun?

_____	_____	_____	_____
-------	-------	-------	-------

4. Is the closure cost estimate available?

_____	_____	_____	_____
-------	-------	-------	-------

(D) Special requirements for ignitable or reactive waste

Are ignitable or reactive waste treated so the resulting mixture is no longer ignitable or reactive?
(Indicate if waste is ignitable or reactive.)

_____	_____	_____	_____
-------	-------	-------	-------

RCRA INSPECTION REPORT

INTERIM STATUS STANDARDS, TREATMENT, STORAGE AND DISPOSAL FACILITIES

DEFICIENCY NOTIFICATION TABLE

ISS INSPECTION

FACILITY NO. - 81-HW-0219

OWNER - Ferrro Corporation

FACILITY NAME - Ferrro Corporation Technical Center

FACILITY LOCATION - 7500 S. Pleasant Valley Rd., Independence, Ohio 44131

FACILITY CONTACT - David B. Harrison

ISS INSPECTION DATE - 7/23/81

PHONE NO. - (216) 641-8580

COLUMN I

COLUMN II

COLUMN III

COLUMN IV

COLUMN V

COLUMN VI

Page

Item No.

OAC Reference

USEPA Reference

See Code
FollowingRefer To
ISS RemarkOEPA
Use

3	III A	1	3745-55-12(A)	265.12 (A)			
		2					
	B	1	3745-55-13	265.13	B		
		2	3745-55-13	265.13			
		3	"	"			
	C	1	3745-55-14	265.14			
		2	"	"			
		3	"	"			
		4	"	"			
	D	1	3745-55-15	265.15			
		2	"	"			
		3	"	"			
4		4	"	"			
		5	"	"			
		6	"	"			
		7	"	"			
		8	"	"			
	E	1	3745-55-16	265.16			
		2	"	"			
		3	"	"			
		4	"	"			
		5	"	"			
		6	"	"			
	F	1	3745-55-17	265.17			
		2	"	"			
		3	"	"			
5	IV	A	3745-55-31	265.31			
		B	3745-55-32	265.32			
		2	"	"			
		3	"	"			
		C	3745-55-33	265.33	B		
		2	"	"	B		
		D	3745-55-34	265.34			
		E	3745-55-35	265.35			
	V	A	3745-55-52	265.52			

COLUMN I

COLUMN II

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Item No.

OAC Reference

USEPA Reference

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ISS RemarkOEPA
Use

Page

(Con't.)	V	A	2	3745-55-52	265.52			
			3	"	"			
			4	"	"			
			5	"	"			
7		B		3745-55-53	265.53			
			1	3745-55-55	265.55			
			2	"	"			
			3	"	"			
	VI	A	D	3745-55-56	"			
			1	3745-55-71	265.71			
			2	"	"			
			B	3745-55-72	265.72			
8		C	1	3745-55-73	265.73	B		
			2b	"	"	B		
			c	"	"	B		
			d	"	"			
			e	"	"	B		
			f	"	"	B		
			g	"	"	B		
9	VII	A	1	3745-56-03	265.112			
			2	"	"			
			3	"	"			
			4	3745-56-32	265.142			
		B	1	3745-56-09	265.118			
			2	"	"			
			3	"	"			
			4	3745-56-34	265.143	B		
	VIII	I	1	3745-56-51	265.171			
			2	3745-56-52	265.172			
			3	3745-56-53	265.173			
			4	"	"			
10			5	3745-56-54	265.174			
			6	3745-56-56	265.176			
			7	3745-56-57	265.177			
		J	1	3745-56-72	265.192			
			2	"	"			
			3	"	"			
			4	3745-56-73	265.193			
			5	3745-56-74	265.194			
			6	3745-56-78	265.198			
			7	3745-56-79	265.199			
			8	3745-56-78	265.198			
11		K	1	3745-57-03	265.222			
			2	3745-57-04	265.223			
			3	3745-57-06	265.225			
			4	3745-57-07	265.226			
			5	"	"			
			6	3745-57-10	265.229			
			7	3745-57-11	265.230			

COLUMN I

COLUMN II

COLUMN III

COLUMN IV

COLUMN V

COLUMN VI

Page	Item No.		OAC Reference	USEPA Reference	See Code Following	Refer to ISS Remark	OEPA USE
12	L	1	3745-57-31	265.251			
		2	3745-57-32	265.252			
		3	3745-57-33	265.258			
		4	3745-57-36	265.256			
		5	"	"			
		6	3745-57-37	265.257			
		7	3745-57-37	265.257			
13	M	1	3745-57-52	265.272			
		2	"	"			
		3	3745-57-53	265.273			
		4	3745-57-56	265.276			
		5	3745-57-58	265.278			
		6	3745-57-58	265.278			
		7	3745-57-59	265.279			
		8	3745-57-61	265.281			
		9	3745-57-62	265.282			
14	N	A	1	3745-57-72	265.302		
			2	"	"		
			3	"	"		
			4	"	"		
	B	1	3745-57-79	265.309			
			"	"			
	C	1	3745-56-03	265.112			
			"	"			
			"	"			
			3745-56-32	265.192			
	D		3745-57-82	265.312			
			3745-55-17	265.17(b)			
15	E		3745-57-83	265.313			
			3745-55-17	265.17(b)			
	F	1	3745-57-84	265.314			
			"	"			
			"	"			
			"	"			
	G		3745-57-85	265.315			
16	I	B	1	3745-58-33	265.373		
			2	"	"		
			3	"	"		
			4	"	"		
			5	"	"		
	II	A	1a	3745-58-35	265.375		
			b	"	"		
			c	"	"		
			2a	3745-58-35	265.375		
			b	"	"		
			1	"	"		
17	B	1	2	"	"		
			3	"	"		
			4	"	"		
			5	"	"		

Page	COLUMN I Item No.		COLUMN II OAC Reference		COLUMN III USEPA Reference		COLUMN IV See Code Following		COLUMN V Refer to ISS Remark		COLUMN VI OEPA USE	
17	III	A		3745-58-37		265.377						
(Con't)		B		"		"						
		C		"		"						
		D		"		"						
		E		"		"						
		F		"		"						
		G		"		"						
	IV	A	1	3745-58-42		265.382						
			2	"		"						
19	Q		1	3745-58-51		265.401						
			2	"		"						
			3	3745-58-52		265.402						
			4	3745-58-53		265.403						
			5	3745-58-55		265.405						
			6	3745-58-56		265.406						
20	IX	I	(A)	3745-52-40		262.40						
			(B)	3745-52-21		262.21						
			1	"		"						
			2	"		"						
			3	"		"						
			4	"		"						
			5	"		"						
			6	"		"						
			7	"		"						
			8	3745-50-42		122.6						
			(C)	3745-52-42		262.42						
21			1	3745-52-42		"						
			2	"		"						
			(D)	3745-52-42		262.42						
			1	"		"						
			2	"		"						
	2	(A)		3745-52-30		262.30						
		(B)		3745-52-31		262.31						
		(C)		3745-52-33		262.33						
22	3		1	3745-52-34		262.34						
			2	"		"						
			3	3745-56-54		265.174						
			4a	3745-56-72		265.192						
			b	"		"						
			c	"		"						
			d	3745-56-74		265.184						
			e	3745-56-78		265.198						
			f	3745-56-79		265.199						
23	VI	A		3745-52-40		262.40						
		B		3745-52-41		262.41						
	VII		1a	3745-52-50		262.50						
			b	"		"						
			c	"		"						
			2	"		"						
24	X	I		3745-53-22		263.22						
		II	A	3745-53-20		263.20						
			B	"		"						
		V	A	3745-53-10		263.10						
			B	3745-53-10		"						

KEY TO CODED ITEMS (COLUMN IV)

- A. Because the inspection at this facility was conducted prior to May 19, 1981, requirements which became effective on that date were not checked. These requirements are now effective and must be met as a condition of interim status under the federal regulations and as part of the considerations for issuance of an Ohio Hazardous Waste Permit.
- B. or C. The inspection revealed a deficiency in compliance with this item, which must be satisfactorily corrected. A determination of compliance will be made in the future.
- D. The inspection revealed a violation of regulations pertaining to this item. Since the environmental consequences of this violation may be quite serious this problem must be corrected as soon as possible. We will schedule another inspection no sooner than 20 days after the date of this letter to determine if compliance has been achieved. Further steps in the permitting process will be delayed until the re-inspection.
- E. Regulations concerning this item will become effective November 19, 1981. These requirements were not addressed in the inspection, but compliance is required by November 19, in order to meet federal interim status requirements and as a part of the considerations in issuing an Ohio Hazardous Waste Permit.
- F. Inspection revealed non compliance with this item. Compliance with this item is required unless a facility has filed as a storage facility. You should either correct the deficiency listed or file an amended Part A application for a storage facility.
- G. NFPA's code requires that the tanks be located 50 feet from the property line.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

APR 05 2007

REPLY TO THE ATTENTION OF: DE 97

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

OHD000817205
FERRO CORP TECHNICAL CENTER
7500 E PLEASANT VALLEY RD
INDEPENDENCE, OH 44131

RE: **OHD000817205**
FERRO CORP TECHNICAL CENTER

Dear Plant Manager/President:

The Ohio Environmental Protection Agency (OEPA) and the United States Environmental Protection Agency (U.S. EPA) have compiled a list of all facilities deemed appropriate and important to address using the Resource Conservation and Recovery Act's (RCRA) Corrective Action Program. Because this set of 3,880 facilities has national remediation goals which will culminate in the year 2020, it is referred to as the 2020 Corrective Action Universe. **Your facility is part of this 2020 Universe.**

As a result, the OEPA and U.S. EPA expect that a final remedy will be in place (i.e. remedy construction completed) at your facility by 2020 (although actual attainment of cleanup goals through remedy implementation may take a while longer). If we have not already done so, we will be working with you to develop a plan and a schedule that achieves this goal before 2020.

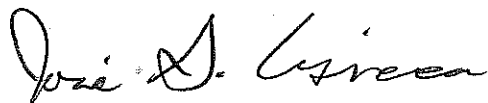
Your facility has been included in the 2020 Universe because *one or more of the following is true:*

- It already belongs to the 2008 Corrective Action Baseline,
- It has a RCRA permit obligation,
- OEPA and U.S. EPA agreed that it needs to be addressed under the RCRA Corrective Action Program.

Inclusion on this list does not imply failure on your part to meet any legal obligation, nor should it be construed as an adverse action against you. It only means that OEPA and U.S. EPA have identified your facility—and every other facility in the 2020 Universe—as needing to complete RCRA Corrective Action if they have not done so already. Our national program goal is to largely address these cleanup obligations before the end of 2020. Accordingly, progress will be tracked for each facility in the 2020 Universe. The list of facilities will be posted on our web site at <http://www.epa.gov/correctiveaction> on April 16, 2007.

U.S. EPA Region 5 will work to address remediation concerns at your facility in a manner consistent with your plans for the property. If you believe that facility-wide corrective actions are already complete for your site, or if you have any questions regarding this letter, please contact George Hamper at (312) 886-0987.

Sincerely,

A handwritten signature in dark ink, appearing to read "Jose G. Cisneros". The signature is fluid and cursive, with the first name "Jose" being more prominent.

Jose G. Cisneros, Chief
Waste Management Branch

A.T. Kearney, Inc.
225 Reinekers Lane
P.O. Box 1405
Alexandria, Virginia 22313
703 836 6210
Facsimile 703 836 0547

Management
Consultants

November 7, 1992

Ms. Carrie Ericson
A. T. Kearney
222 West Adams
Chicago, ILL 60606

ATKEARNEY

Reference: EPA Contract No. 68-W9-0040; Work Assignment
No. R05-25-05; Ferro Corporation Technical
Center, Independence, OH; PA/VSI; QC Review and
Comments

Dear Carrie:

I've completed the review of the PA/VSI report for the Ferro Corporation facility. You provided a well written report with minor typographical and grammatical errors. I've included suggested wording changes within the text of the report and listed below are some issues or questions which should be resolved:

- 1) You did not include any maps, figures or sections on Soils or Geology and Hydrogeology, therefore there has not been a QC of that section. Please have Rob review the section prior to submittal to EPA. Be sure to include all of the points that should be addressed (i.e., depth to groundwater, direction of groundwater flow, etc.). For the soils you can request a free soil survey from the county Soil Conservation Service. Sometimes the soil surveys also have geology information. For geology and hydrogeology you can probably get something from the Ohio Geological Survey if the Chicago office does not have any bulletins for the Cleveland area.
- 2) There was no stabilization questionnaire included so this should also be checked by Rob.
- 3) I know that the references are not that descriptive of the process but could you elaborate more on what the plastic pellets are used for. Is this their primary product?
- 4) On SWMUs 8 and 10, if these units are below grade, I would suspect that the integrity is questionable. If you agree, have them determine the integrity of the units and if the integrity is impaired, then they should sample the underlying soils to determine if a release has occurred.
- 5) The closure issue is confusing. Does EPA understand what is going on? Would it help to call the EPA WAM and

Ms. Carrie Ericson
November 7, 1992
Page 2

discuss it with them so that your language can be more definitive?

- 8) Be sure to put the directions you faced "indoors" for the photos.
- 7) Be sure to include the Visual Site Inspection Summary prior to the photo log.
- 8) In Photo 1-27 you mention a loading dock sump. Wouldn't this be a SWMU?

I know that you may have been rushed to get this out so hopefully you have time to fill in the gaps. Let me know if you do not understand some of my questions. Good luck.

Sincerely,

Phebe Davol

Phebe Davol

✓
Manages
Stormwater
only

✓
in process
section about
loading dock
w/ trench
no haz. const.
∴ no
SWMU

Cover
letter?

PRELIMINARY ASSESSMENT/VISUAL SITE INSPECTION



of the

Ferro Corporation/ Technical Center

Independence, Ohio

EPA I.D. No. OHD000817205

Work Assignment No. R05-25-05

Insert standard
cover page
Brenda

QC comments

FERRO CORPORATION/ TECHNICAL CENTER
INDEPENDENCE, OHIO
EPA I.D. No. OHD000817205

TABLE OF CONTENTS

*Fix Table of
Contents
to include
all sections
Bre...*

ATTACHMENTS

- A Corrective Action Stabilization Questionnaire
- B VSI Summary, Logbooks and Photographic Log

TABLES

- 3.1 Laboratory Hazardous Satellite Waste Accumulation Areas

FIGURES

- 1 Facility Location Map
- 2 SWMU Location Map

EXECUTIVE SUMMARY

A Preliminary Assessment/Visual Site Inspection (PA/VSI) was conducted at the Ferro Corporation's Technical Center, Independence, Ohio facility (EPA I.D. No. 000817205). The purpose of the PA/VSI was to assess the potential for releases from solid waste management units (SWMUs) and areas of concern (AOCs) at the facility. This PA/VSI Report summarizes the findings of the review of the available file materials and the visual site inspection (VSI), which was conducted on October 14, 1992. In addition, a completed Corrective Action Stabilization Questionnaire is included as Attachment A to assist in the prioritization of RCRA facilities.

Ferro Corporation's Technical Center serves as a research and development center for Ferro Corporation. The Technical Center conducts both short and long-range research programs for Ferro operations. The R&D facility conducts tests and analysis of polymeric, organic, inorganic, and composite materials. Supporting activities include computer programming and statistical analysis. Ferro began operations in 1969 at this facility.

✓ ^{ten} 10 SWMUs were identified during the PA/VSI. These are listed as follows:

*usually put
SP
number
if it
begins with
Sentence.*

<u>Solid Waste Management Unit</u>	<u>Name</u>
1	Laboratory Hazardous Satellite Waste Accumulation Areas (SAAs)
2	Solvent Room Accumulation Area (AA)
3	Current Hazardous Waste Container Storage Area
4	Former Hazardous Waste Container Storage Area
5	Plastics Staging Area
6	Dust Collector
7	Spray Booth Filter Accumulation Areas (AA)
8	Settling Basin
9	Wet Spray Booth
10	Neutralization Tank

*Delete
I changed it
to # 10 on
deck*

¹⁰ Of the ~~ten~~ SWMUs listed above, nine of the SWMUs are currently active and operating at the facility. The Former Hazardous Waste Container Storage Area (SWMU 4) was closed by the facility in 1984. However, the status of the unit has been in question with the OEPA and the U.S. EPA since 1984. Certification of closure of the unit was not submitted to the U.S. EPA until August, 1989. U.S. EPA authorization of certification is on hold, pending the facility submittal and Agency approval of the closure plan used to close the unit.

Threat of release to air, surface water, groundwater and soils surrounding the facility from the SWMUs is low.

*why?
Add some more
information
✓*

1.0 INTRODUCTION

Preliminary Assessment/Visual Site Inspections (PA/VSI) are being performed at several RCRA facilities in Region V as part of the United States Environmental Protection Agency's (EPA's) Environmental Priorities Initiative. Through the initiative, EPA Region V is prioritizing RCRA facilities for corrective action. Through the PA/VSI process, sufficient information is obtained to characterize a facility's actual or potential releases to the environment from solid waste management units (SWMUs) and areas of concern (AOCs).

This report presents the results of the PA/VSI for the Ferro Corporation's Technical Center in Independence, Cuyahoga County, Ohio. The facility EPA I.D. No. is OHD000817205. The information used in preparing this report was compiled from State of Ohio Environmental Protection Agency (OEPA) files, EPA Region V files, and information gathered during the VSI.

The purposes of the PA are to:

- * Identify SWMUs and AOCs at the facility.
- * Obtain information on the operational history of the facility.
- * Obtain information on releases from any units at the facility.
- * Identify data gaps and other informational needs to be filled during the VSI.

The purposes of the VSI are to:

- * Identify SWMUs and AOCs not found during the PA.
- * Identify releases not discovered during the PA.
- * Provide a more specific description of the environmental setting.
- * Provide more information on release pathways and the potential or releases to each media.
- * Confirm operations, SWMUs, AOCs, and release information obtained during the PA.

The VSI included interviewing appropriate facility staff, inspecting the entire facility to identify all SWMUs and AOCs, photographing all SWMUs, identifying evidence of releases, initially identifying potential sampling locations, and obtaining all information necessary to complete the VSI report. A

Corrective Action Stabilization Questionnaire was completed after the VSI. The questionnaire indicates that stabilization is not recommended for Ferro Corporation's Technical Center.

The VSI was conducted on October 14, 1992. A total of 10 SWMUs and no AOCs were identified during the VSI.

An Introduction to the report is provided in Section 1.0. Section 2.0 provides a description of the facility which includes the facility location, operations, release history, environmental setting and receptors. Sections 3.0 and 4.0 of the report provide a summary of the information available for each SWMU, including observations made during the VSI. References used to prepare this report are included in Section 6.0. Attachment A includes a Corrective Action Stabilization Questionnaire, which was completed after the VSI. A summary of the VSI and the VSI Photographic Log are presented in Attachment B. The VSI Field Notes are also included in Attachment B.

2.0 FACILITY DESCRIPTION

This section describes the facility location, past and present operations, waste streams, waste management practices, release history, regulatory history, environmental setting, and potential receptors.

2.1 FACILITY LOCATION

occupies ✓ Ferro Corporation's Technical Center is located on Pleasant Valley Road in Independence, Ohio (Figure 1). The facility ~~measures~~ *what industries?* *where is this?* approximately 16 acres. The surrounding land use is primarily industrial and undeveloped, ~~forested area~~ (Reference 24). ✓

2.2 FACILITY OPERATIONS

Prior to 1969 the facility was an undeveloped forested area. Ferro purchased the site from R. Copelin, S. Copelin, S. Cohen, and A. Cohen in 1969. The site currently contains two buildings which house all onsite operations. The original Technical Center laboratories and offices were constructed in 1970. A second building was constructed in 1978 to house the Data Center operations. An addition was added to the south side of the original Technical Center building in 1984 (Reference 24).

✓ Ferro Corporation is a manufacturer of specialty plastics. Prior to 1980, the majority of the research activities conducted at the facility was on glass technologies and materials. This research is currently a minor portion of the activities conducted at the facility. Currently, the majority of the Technical Center operations consist of conducting product and process research and development in plastics, polymers and ceramic for long term research. Technical Center activities include the development of additives, the addition of pigments and stabilizers and the compounding of plastics. A typical test run of plastic pellet material will average approximately 500 pounds (References 23 and 25). *info on the pellets used for?* ✓

In addition to long term research, the facility conducts sample analyses of products produced at other Ferro locations to detect defects. Supporting activities include computer programming and statistical analysis (Reference 25).

✓ The facility consists of a number of research laboratories. The specific nature of the research conducted in each laboratory may have changed over the years as Ferro Corporation products and technology change. *variety* ✓ However, standard laboratory operating procedures are adhered to within each of the laboratories (Reference 25).

A majority of the laboratories use small quantities (10 pounds or less) of a ~~large number~~ *variety* ✓ of minerals, acids, bases, organic and inorganic chemicals in their R&D and analysis activities. The

facility also uses larger quantities (100 pounds/month) of several chemicals including alumina, quartz, polypropylene, nylon, acetone, denatured alcohol, cyclohexane, MEK, PET, fiberglass, borax, zinc oxide, ABA, barium carbonate and calcium carbonate. As a result, many of the laboratories contain Laboratory Hazardous Satellite Waste Accumulation Areas (SAAs) (SWMUs 1A - 1I) to dispose of these substances after they are used (Reference 24).

Hazardous waste is transferred from Laboratory Hazardous Waste SAAs (SWMUs 1A - 1I) to 55 gallon drums in the Solvent Room AA (SWMU 2). From the Solvent Room AA, full drums are transferred to the Current or Former Hazardous Waste Container Storage Areas (SWMUs 3 and 4) where they are held until they are collected by a contractor for shipment and disposal offsite (References 24 and 25).

From 1989 through 1992, the facility generated and shipped offsite for disposal the following quantities and types of wastes:

WASTES GENERATED AT THE FERRO TECHNICAL CENTER (gallons)

WASTE TYPE	1989	1990	1991	1992*
Non-halogenated Solvents	530	165	740	350
Halogenated Solvents	300	55	110	1100
Waste Oil	300	0	220	50
Hazardous Solid Waste	0	1200 lbs.	500 lbs.	
Waste Lab Chemicals	0	50	0	16

* Quantities listed through September, 1992.

A liquid nitrogen above ground storage tank was installed at the facility in September, 1992. The unit supplies liquid nitrogen to the analytical laboratories.

2.3 RELEASE HISTORY

No releases or spills at the facility were identified within available file materials or by facility representatives at the time of the VSI. The OEPA Emergency Response Online System Pollution Incidents Report for January 1978 through July 1992 does list several releases as having occurred at various Ferro Corporation facilities. However, facility representatives advised the VSI team that none of these releases occurred at Ferro Corporation's Technical Center (References 1 and 25).

who would this consist of?

who does this have to do with or the operations Add another sentence delete entirely

2.4 REGULATORY HISTORY

In September 1980, the facility submitted a Part A application identifying the Former Hazardous Waste Container Storage Area (SWMU 4) (SO1) at the facility. In December 1981, the Ohio Hazardous Waste Facility Board issued permit #02-18-0219 to the facility. The U.S. EPA acknowledged receipt of the facility's Part A application in April, 1982 and indicated that the facility met requirements for operating under interim status as a treatment/storage/disposal (TSD) facility of hazardous waste (References 20 and 22).

By November 1983, the facility had removed all hazardous waste from the Former Hazardous Waste Container Storage Area (SWMU 4) to an offsite location for treatment and disposal.

In September 1984, the facility advised the OEPA that it had closed the Former Hazardous Waste Container Storage Area (SWMU 4) and that its current permitted status should be changed from a TSD to a small quantity generator. (This report to the OEPA was not in the available file materials) (Reference 12).

In April 1985, in a letter to the facility, the OEPA acknowledged the facility's status as a generator only with less than ninety days storage capacity (Reference 9).

In April 1987, the OEPA advised the facility that it was not subject to financial responsibility rules because the facility had withdrawn its Part A and certified closure of the Former Hazardous Waste Container Storage Area (SWMU 4) in September, 1984.

In April 1988, the U.S. EPA called in the facility's Part B Permit application. In October 1988 the facility advised the U.S. EPA that the OEPA had withdrawn the Part A and changed the facility's status to a generator with less than ninety-day storage capacity (Reference 6).

In December 1988, the U.S. EPA requested certification of RCRA closure of the Former Hazardous Waste Container Storage Area (SWMU 4). In March 1989 the facility contracted with a professional engineer from WC Midwest Company who certified closure of the unit. The certification was submitted to the U.S. EPA in 1989. U.S. EPA authorization of certification for the unit is on hold, pending the facility submittal of the closure plan used to close the unit (References 3 and 4).

Ferro filed a Notice of Registration for all emissions sources at the facility. A Notice of Registration for the Gas Fired Heating Boiler, the Fume Hoods/Ovens/Spray Booths and Plastics Research Test Equipment, in 1976, 1985 and 1986 respectively. According to facility representatives, these units do not require an air permit. The only air pollution control device at the facility is a Torit dust collector utilized in the maintenance shop for

sawdust collection (Reference 24).

According to facility representatives, the facility has no NPDES permits (Reference 28).

2.5 ENVIRONMENTAL SETTING

The following sections describe the climate, area soils and surface waters, and area geology and hydrogeology.

2.5.1 Climate

The climate in Independence is continental in nature, with moderate extremes of heat, cold, wetness and dryness. Summers are moderately warm and humid, and winters are cold with approximately seven days of subzero weather. The normal annual temperature in the area is approximately 50°F. The average annual precipitation is 35 inches with the highest precipitation occurring July through August and the lowest in February (Reference 26).

2.5.2 Soils and Surface Water

Surface water run-off at the facility flows north toward Pleasant Valley Road. The Cuyahoga River is the closest surface water body near the facility. The river runs north to south approximately $\frac{1}{2}$ miles to the east of the facility. *Does it flow to a creek or tributary of the Cuyahoga?* *Flows From* *(Ref. 28)*

2.5.3 Geology and Hydrogeology

2.6 RECEPTORS

The Ferro facility is located in an area of Independence which consists of both industrial and residential facilities which are widely scattered. Onsite access is not restricted by a fence or gate of any kind. Therefore, there is potential for onsite exposure to area residents. *The facility is not within a 100-year floodplain (Reference 24).* *Need to insert See Rob*

The highest concentration of homes with a close proximity to the facility is approximately one quarter mile to the west and south of the facility. The homes are widely scattered with undeveloped, forested area separating them from the Ferro facility. Prevailing wind direction in the areas is to the south with a mean speed of 10.6 miles per hour (Reference 26).

Ferro and the nearby residential and industrial facilities rely on hookups to the Cleveland municipal water system for process and domestic water. The municipal water system gets its water from Lake Erie. In addition, Ferro relies on a hookup to the North East Ohio Regional Sewer District to manage its sanitary wastewater (References 25 and 27).

3.0 DESCRIPTION OF POTENTIAL SOLID WASTE MANAGEMENT UNITS

→ need

This section presents detailed descriptions and release assessments for the 10 Solid Waste Management Units (SWMUs) identified during the PA/VSI. Figure 2 (SWMU Location Map) depicts the locations of all SWMUs at the facility. Section 5.0 addresses the Suggested Further Actions at all SWMUs.

I don't think
you say this -
ask Rob.
deleted

It includes a description
of the unit, dates of operation,
wastes managed, release
controls, release history, and observations ✓

SWMU 1

Photographs: 1-1 through 1-13, 1-20

Unit Name: Laboratory Hazardous Satellite Waste Accumulation Areas (SAAs)

Unit Description: These units are located in the various research laboratories located throughout the facility. (see Table 3.1 for specific laboratory locations). The units are designed to accumulate lab waste samples, typically less than one milligram each, near generation points. The units accumulate wastes in glass one-gallon bottles and metal two-gallon containers. From the units, the waste is transferred to the Solvent Room Accumulation Area (SWMU 2) for storage. All of the units are located indoors, generally on tables under fume hoods *or on floors* (Reference 25).

Date of Start-up: Many of these units have been active since 1970, the start-up date of the facility (Reference 25).

Date of Closure: The units were operating at the time of the VSI (Reference 25).

Wastes Managed: The majority of the units manage small quantities of non-halogenated and halogenated solvents used in laboratory analysis. The SAA in the Clean Room (SWMU 1I) manages chlorinated and non-chlorinated wastes (Reference 25).

Release Controls: All of these units are located indoors, generally on tables under hoods (Reference 25).

History of Release: According to facility representatives at the time of the VSI, there have been no releases from this unit (References 24 and 25).

Observations: At the time of the VSI, the containers were stored closed. There were minor stains on the tables or floor areas where the units were located, however, the stains were limited and did not pose a threat to the environment (Reference 25).

↑ appear to

TABLE 3.1

LABORATORY HAZARDOUS SATELLITE WASTE ACCUMULATION AREAS

SWMU Number	SWMU Location	Period of Operation	Photograph #
1A	Inorganic Analytical Lab	1970 to Present	1-1
1B	Microscopy Lab	1970 to Present	1-2
1C	Chromatography Lab (2 units)	1984 to Present	1-3 1-6
1D	Chromatography Lab For GPC* (2 units)	1984 to Present	1-4 1-5
1E	Analytical Lab (2 units)	1970 to Present	1-8 1-9
1F	Nuclear Magnetic Resonance Lab	1984 to Present	1-10
1G	Polymer Modification Lab (2 units)	1984 to Present	1-11 1-12
1H	Film Processing Lab	1985 to Present	1-13
1I	Clean Room	1989 to Present	1-19

* GPC - Gel Permeation Chromatograph.

*This is
SWMU 5*

*Which one
does photo 1-20
belong to?*

Unit Name: Solvent Room Accumulation Area (AA)

Unit Description: The unit is located in an explosion proof room, approximately 12 feet by 20 feet, adjacent to the facility loading dock. The unit consists of five steel drums. The unit receives waste from the Laboratory Hazardous Waste SAAs (SWMU 1) and stores it in closed 55-gallon drums for less than ninety days. Prior to 1984, the waste was transferred from the unit to the Former Hazardous Waste Container Storage Area (SWMU 4). Since 1984, the waste has been transferred to the Current Hazardous Waste Container Storage Area (SWMU 3) (References 24 and 25). ✓

Date of Start-up: The unit began operations in 1984 (Reference 24).

Date of Closure: The unit was operating at the time of the VSI (Reference 25).

Wastes Managed: The unit manages solvent wastes, primarily halogenated, non-halogenated, chlorinated and non-chlorinated wastes, generated from laboratory research and development activities. In addition, it manages waste solvents from laboratory equipment cleaning operations. Raw materials, which include technical grade acetone and denatured alcohol, are also stored in the room (References 24, and 25). and 28

and spill clean-up material if spills occur at the facility.

Release Controls: The unit is located indoors, in an explosion proof room. The room vents to the atmosphere. The drums are stored closed. Buckets of absorbent material are located within the room for use in the event of a small spill (References 24 and 25).

History of Release: According to facility representatives at the time of the VSI, there have been no releases from this unit (References 24 and 25).

Observations: At the time of the VSI, the drums were closed with rusted tops. The concrete floor area beneath the drums was dirty with minimal cracking (Reference 25). *minor* *stained*

*halogenated implies chlorinated -
are there other halogenated chemicals such as
✓ Brominated ?*

SWMU 3

55-gallon ✓

Photograph: 1-23

Unit Name: Current Hazardous Waste Container Storage Area

Unit Description: The unit is located outside along the west side of the new addition to the main building. It is situated on concrete within a caged area approximately 32 feet by 50 feet. The unit consists of one steel drum on a pallet. In addition to the drum storing hazardous wastes, nine empty drums were stored near the unit for future hazardous waste storage activities. The unit receives waste from the Solvent Room Accumulation Area (SWMU 2) and stores it until it is removed from the site by (References 24 and 25). ? ?

Date of Start-up: The unit began operations in 1988 (References 24 and 25).

Date of Closure: The unit was operating at the time of the VSI (Reference 25).

Wastes Managed: The unit manages solvent wastes, primarily halogenated, non-halogenated, chlorinated and non-chlorinated wastes, generated from laboratory research and development activities. In addition, it manages waste solvents from laboratory equipment cleaning operations (References 24 and 25).

Release Controls: The unit is situated on concrete in a caged area. The drum is stored closed. Buckets of absorbent material are located within the area for use in the event of a small spill (References 24 and 25).

History of Release: According to facility representatives at the time of the VSI, there have been no releases from this unit (References 24 and 25).

Observations: At the time of the VSI, the drum was closed. There were minor stains and cracks on the concrete surrounding the unit, however, the stains were limited and did not pose a threat to the environment (Reference 25).

- Photos shows a curb. doesn't 100% surround unit ✓

why?

appears to ✓

see note on SWMU 2 Re: chlorinated, halogenated

Unit Name: Former Hazardous Waste Container Storage Area ✓

Unit Description: The unit was closed by the facility in 1984. It was located outside ^{and} south of the original research building structure between two metal sheds. The unit was approximately 12 feet by 20 feet and paved with asphalt. The unit consisted of steel drums which stored wastes received from the Solvent Room Accumulation Area (SWMU 2). It is currently situated approximately six feet below grade under asphalt in the parking area (References 22, 24 and 25).

The permitted status of the unit has been in question since 1984. The facility was granted status as a TSD facility in January, 1984. The facility removed all hazardous waste and closed the unit in 1984. The contractor who received the waste was
see C

Certification of closure for the unit was submitted to the U.S. EPA in August, 1989. U.S. EPA authorization of certification is currently on hold, pending the facility submittal of the closure plan (References 3, 4, 10, 12, 14, 22, and 25).

Date of Start-up: The unit began operations in 1980 (Reference 25).

Date of Closure: The unit ceased operating in 1984 (Reference 25).

Wastes Managed: The unit managed solvent wastes, primarily halogenated, non-halogenated, chlorinated and non-chlorinated wastes, generated from laboratory research and development activities. In addition, it managed waste solvents from laboratory equipment cleaning operations (References 24 and 25).

Release Controls: The unit was situated on asphalt between two metal sheds. The drums were stored closed (Reference 25).

History of Release: According to facility representatives at the time of the VSI, there were no releases from this unit (References 24 and 25).

Observations: At the time of the VSI, the unit was paved over, approximately six feet below grade. Therefore, it was impossible to observe (Reference 25). ✓

to the former unit
See Howard note on SWMU 2 ✓

SWMU 5

Unit Name: Plastics Staging Area

Unit Description: The unit is located in the Injection Molding Room. It consists of a PVC drum which receives floor sweepings from the plastic processing rooms and maintenance shop area. From the unit, the waste ^{was} ~~is~~ disposed of in the facility dumpsters with the office refuse (Reference 25). *AAA/VU*

Date of Start-up: The unit began operations in 1984 (Reference 25).

Date of Closure: The unit was operating at the time of the VSI (Reference 25).

Wastes Managed: The unit manages floor sweepings from the plastic processing rooms and maintenance shop area (Reference 25).

Release Controls: The unit is located indoors on concrete (Reference 25).

History of Release: According to facility representatives at the time of the VSI, there have been no releases from this unit (References 24 and 25).

Observations: At the time of the VSI, the unit was closed with no visible evidence of release (Reference 25). *drum ✓*

*Formerly transferred to the Dumpster (SWMU 10).
Currently, wastes within the unit are
transported ~~to~~ directly off-site
to ENSCO in El Dorado, Arkansas.
Photograph: 1-19*

SWMU 6

Photograph: 1-16, 1-17

Unit Name: Dust Collector

Unit Description: The unit is located in the maintenance shop. It consists of a Torit dust collector which manages wood and metal shavings from the maintenance shop area. The unit has a 4 inch-PVC pick-up tube with steel pipes extending to the roof. The rooftop collectors are checked approximately one time per month to see if they are full. From the unit, the waste is disposed of in the facility dumpsters with the office refuse (Reference 25). *see H*

Date of Start-up: The unit began operations in 1984 (Reference 25).

Date of Closure: The unit was operating at the time of the VSI (Reference 25).

Wastes Managed: The unit manages wood and metal shavings from the maintenance shop area (Reference 25).

Release Controls: The unit is located indoors (Reference 25).

History of Release: According to facility representatives at the time of the VSI, there have been no releases from this unit (References 24 and 25).

Observations: At the time of the VSI, the integrity of the unit appeared sound and it was relatively clean (Reference 25).

do global

SWMU 8/7

Photograph: 1-14, 1-15

Unit Name: Settling Basin

Unit Description: The unit is located in the mixing/furnace room. It consists of a trench approximately 8 feet square by 25 feet deep. The unit receives ceramic slurry from an adjacent ball mill grinder. It has a series of screens which filter out the slurry. The waste sludge settles down to the bottom of the unit and the wastewater is discharged to the sanitary sewer system.

eight ✓

feet or inches?

From the unit, the waste sludge is removed periodically. The last time the waste sludge was cleaned out was in 1990. Most recently, the facility has contracted with AmeriWaste Environmental Services Co. to remove the sludge. The unit manages approximately 1000 pounds of waste sludge per year *See I* (Reference 25).

Date of Start-up: The unit began operations in 1984 (Reference 25).

Date of Closure: The unit was operating at the time of the VSI (Reference 25).

Wastes Managed: The unit manages inorganic sludge waste which is generally hazardous due to its contact with metal (primarily borax). In the past the material contained lead and cadmium (Reference 25).

What is hazardous about borax?

Release Controls: The unit is located indoors (Reference 25).

History of Release: According to facility representatives at the time of the VSI, there have been no releases from this unit (References 24 and 25).

Observations: At the time of the VSI, the unit was covered with a metal grating. Dried ceramic dust covered the unit and the surrounding surface area of the floor (Reference 25).

and how does Borax get into the system?

SWMU 9 03

Photograph: 1-15

Unit Name: Wet Spray Booth

Unit Description: The unit is located in the mixing/furnace room. It consists of a paint spray booth which since the early 1980s has been used as a clean out booth. The unit receives the metal grinding balls from the adjacent ball mill grinder. The ceramic slurry is cleaned off of the balls in this unit. The wastewater containing the slurry is discharged into the Settling Basin (SWMU 10) (Reference 25).

Date of Start-up: The unit was installed in 1970. However, it *the facility* began being used for waste management activities in the early 1980s (Reference 25). ✓

Date of Closure: The unit was operating at the time of the VSI (Reference 25).

Wastes Managed: The unit manages ceramic waste which is generally hazardous due to its contact with metal (primarily borax). In the past the material contained lead and cadmium (Reference 25). ✓

Release Controls: The unit is located indoors (Reference 25).

History of Release: According to facility representatives at the time of the VSI, there have been no releases from this unit (References 24 and 25).

Observations: At the time of the VSI, the unit and the surrounding surface areas were covered with dried ceramic dust (Reference 25).

See
comment
about
Borax on
SWMU 8

SWMU 10⁹

Photograph: 1-18

Unit Name: Neutralization Tank

Unit Description: The unit is located in the plastics processing laboratory. It consists of a limestone sump with a metal covering. The unit neutralizes contact and non-contact cooling water from the plastic extruding process. The cooling water is then recirculated throughout the process (Reference 25). ^{see G}

Date of Start-up: The unit began operations (??) (Reference 25). [?]

Date of Closure: The unit was operating at the time of the VSI (Reference 25).

Wastes Managed: The unit manages contact and non-contact cooling water from the plastic extruding process (Reference 25). ^{what constituents?}

Release Controls: The unit is located indoors (Reference 25).

History of Release: According to facility representatives at the time of the VSI, there have been no releases from this unit (References 24 and 25).

Observations: At the time of the VSI, the unit was closed and it was impossible to observe it (Reference 25).

Potential constituents
when contact cooling water
may include

✓
this below grade
flow is the integrity

SWMU 7 ✓ 10

Photograph:



Unit Name: Spray Booth Filter Accumulation Area

Unit Description: The unit is located



Date of Start-up: The unit began operations

Date of Closure:

Wastes Managed:



Release Controls:

History of Release: According to facility representatives at the time of the VSI, there have been no releases from this unit (References 24 and 25).

Observations:



Delete
SWMU

5.0 CONCLUSIONS

SWMUs 1A - 1I Laboratory Hazardous Satellite Waste Accumulation Areas

Conclusions: The past and present potential for releases to groundwater, surface water, soil and air from these units is low since the units are located indoors on concrete and/or tile floors and the waste is stored in closed containers.

Recommendations: No further action is recommended for these units.

SWMU 2 Solvent Room Accumulation Area

Conclusions: The past and present potential for releases to groundwater, surface water, soil and air from this unit is low since it is located indoors on concrete and the waste is stored in closed drums.

Recommendations: No further action is recommended for this unit.

SWMU 3 Current Hazardous Waste Container Storage Area

Conclusions: The past and present potential for releases to groundwater, surface water, soil and air from this unit is low since it is located on concrete and the waste is stored in closed drums.

Recommendations: No further action is recommended for this unit.

SWMU 4 Former Hazardous Waste Container Storage Area

Conclusions: The past potential for releases to groundwater, surface water, soil and air from this unit is ~~impossible to~~ ^{cannot be} determine because the unit is now six feet below grade and the closure plan used is not currently available for review.

Recommendations: Provide a copy of the closure plan for Agency review.

SWMU 5 Plastics Staging Area

Conclusions: The past and present potential for releases to groundwater, surface water, soil and air from this unit is low since it is located indoors on concrete and the waste is stored in closed drums.

Recommendations: No further action is recommended for this unit.

SWMU 6 Dust Collector

Conclusions: The past and present potential for releases to groundwater, surface water, soil and air from this unit is low

may be warranted for this unit
sampling, testing, recommended.
based on a review of the closure plan

U.S. EPA

check w/
person this
one

because the unit does not manage hazardous waste or hazardous constituents.

Recommendations: No further action is recommended for this unit.

SWMU 7 Spray Booth Filter Accumulation Area

Conclusions: The past and present potential for releases to groundwater, surface water, soil and air from this unit is

Recommendations:

SWMU 8 Settling Basin

Conclusions: The past and present potential for releases to surface water from this unit is moderate since in the past it managed ceramic sludge which contained lead and cadmium and was cleaned from the unit infrequently. As a result, the unit may have discharged contaminated wastewater to the sewer system. The potential for release to soil and groundwater from the unit is unknown because the integrity of the unit could not be confirmed due to its subsurface location. The potential for release to air is low due to the non-volatile nature of the wastes managed.

Recommendations: Because the unit managed wastes containing heavy metals in the past, sampling of the unit is recommended to determine if contamination of the unit remains.

SWMU 9 Wet Spray Booth

Conclusions: The past and present potential for releases to groundwater, surface water, soil and air from this unit is low because the unit is located indoors on concrete.

Recommendations: No further action is recommended for this unit.

SWMU 10 Neutralization Tank

Conclusions: The past and present potential for releases to groundwater, surface water, soil and air from this unit is low because the unit is located indoors and manages non-volatile wastewater from contact and non-contact plastic cooling operations.

Recommendations: No further action is recommended for this unit.

Do you think
the integrity
should be checked?

Delete
shd be #10
order: 10
sample the unit
or soils beneath the
unit?
Perhaps you should determine the

TABLE 5.1

SWMUs and SUGGESTED FURTHER ACTIONS

SWMU	Operational Dates	Evidence of Releases	Suggested Further Actions
1A-1I	1970 to Present	No	None
2	1984 to Present	No	None
3	1984 to Present	No	None
4	1970 to 1984	No	Obtain copy of closure plan.
5	1984 to Present	No	None
6	1984 to Present	No	None
7			
8	1984 to Present	No	Sampling to determine whether hazardous constituents remain in the unit.
9	Early 1980s to Present	No	None
10	?? to Present	No	None

1984
(shld be #9)

delete
not he

not

see comment

6.0 REFERENCES

1. OEPA Emergency Response Online System, Releases for 1/78 - 7/92.
2. Inter-office communication from Debby Berg, North East District Office, OEPA to Sue Nitecki, Division of Solid and Hazardous Waste, OEPA, Re: Removal of facility from Ohio Part B candidate list, October 25, 1989.
3. Letter to Lisa Pierard, Chief Ohio Section, U.S. EPA, from Eldridge White, Manager of Corporate Research, Ferro Corporation, Re: Certifying closure of the facility by a registered engineer, March 17, 1989.
4. Letter to Eldridge White, Ferro Corporation, from Lisa Pierard, Chief Ohio Section, U.S. EPA, Re: Response to October 17, 1988 letter - Part A withdrawal, December 15, 1988.
5. Letter to William Muno, Acting Associate division Director, Office of RCRA, U.S. EPA, from Eldridge White, Ferro Corporation, Re: Response to April 22, 1988 letter - Part B Call-In, October 17, 1988.
6. Letter to David Harrison, Manager Administration, Ferro Corporation Technical Center, from William Muno, Acting Associate division Director, Office of RCRA, U.S. EPA, Re: Part B Call-In, April 22, 1988. J
7. Waste Minimization Addendum to Generator Biennial or Annual Hazardous Waste Report for 1985, February 26, 1986.
8. Air Pollution Control Appendix A., Process Data, August 2, 1985.
9. Letter to Dr. Roy Harrington, Vice President, Corporate Director Research, Ferro Corporation, from Thomas Crepeau, Manager, Division of Solid and Hazardous Waste Management (DSHWM), OEPA, Re: expiration of Ohio Hazardous Waste Installation & Operation Permit (OHWIOP) and change of status to generator only with less than 90 day storage, April 5, 1985. X
10. Letter to David Harrison, Ferro Corporation, from Rodney Beals, DSHWM, OEPA, Re: facility inspection conducted December 3, 1984 & requesting a closure certification for the drum storage area, December 14, 1984. X
11. RCRA Interim Status Inspection Form, December 3, 1984.
12. Letter to DSHWM, OEPA, from Roy Harrington, Vice President Corporate Director Research, Ferro Corporation,

Re: Response to August 14, 1984 letter - OHWIOF expiration - advising that storage area closed, September 24, 1984.

13. Letter to Ferro Corporation from Steven White, Chief DSHWM, OEPA, Re: OHWIOF expiration, August 14, 1984.
14. Letter to David Harrison, Ferro Corporation, from Rodney Beals, Environmental Scientist, Division of Hazardous Materials Management (DHMM), OEPA, Re: Inspection conducted January 27, 1984, facility found in general compliance and facility request to withdraw Part A application, January 31, 1984.
15. RCRA Interim Status Inspection Form, January 27, 1984.
16. Letter to David Harrison, Ferro Corporation, from Rodney Beals, Environmental Scientist, DHMM, OEPA, Re: Contingency Plan deficiency response and facility return to general compliance, August 16, 1983.
17. Letter to David Harrison, Ferro Corporation, from Rodney Beals, Environmental Scientist, DHMM, OEPA, Re: Inspection conducted March 17, 1983 and deficiencies identified, April 8, 1983.
18. Letter to David Harrison, Ferro Corporation, from Peggy Vince, Executive Director, Hazardous Waste Facility Approval Board (HWFAB), Re: An administrative error found in the facilities Hazardous Waste Facility Installation and Operation Permit (HWFIOF) 02-18-0219, September 17, 1982.
19. Letter to David Harrison, Ferro Corporation, from Robert Buda, Environmental Scientist, DHMM, OEPA, Re: Inspection conducted July 26, 1982, August 11, 1982.
20. Letter to David Harrison, Ferro Corporation, from Peggy Vince, Executive Director, Hazardous Waste Facility Approval Board (HWFAB), Re: HWFIOF permit, December 8, 1981.
21. Letter to David Harrison, Ferro Corporation, from Paul Flanigan, P.E., DHMM, OEPA, Re: Inspection conducted July 29, 1981 and deficiencies identified, September 9, 1981.
22. Hazardous Waste Permit Application, Ferro Corporation Technical Center, November 4, 1980.
23. Ferro Technical Center brochure. Undated.
24. Ferro written responses to VSI notification letter questions. October 14, 1992.

25. VSI logbooks. October 14, 1992.

26. Climates of the States, Volume 2, Third Edition, Gale Research Company. 1985.

27. Conversation with Ron Reed of Cleveland Municipal Water Department. November 4, 1992.

28. Conversation with Paul Angus of Ferro Corporation, November 3, 1992.

What is the #2. does not mean horizontal?

Is your direction indoors?

You were still facing a direction

Several indoor units directions noted as indoor only in various portions of the bldg.

PHOTOLOG

<u>ORIENT.</u>	<u>#</u>	<u>DIRECTION</u>	<u>DESCRIPTION</u>
H	1-1	Indoors	View of the Inorganic Laboratory Hazardous Waste Accumulation Area (SWMU 1A) consisting of one one-gallon glass jug on a table within the hood.
H	1-2	Indoors	View of the Microscopy Laboratory Hazardous Waste Accumulation Area (SWMU 1B) consisting of one one-gallon plastic jug on a table within the hood.
H	1-3	Indoors	View of the Chromatography Laboratory Hazardous Waste Accumulation Area (SWMU 1C) consisting of one one-gallon glass jug on a table within the hood.
H	1-4	Indoors	View of the Chromatography Laboratory Hazardous Waste Accumulation Area (SWMU 1D) consisting of one one-gallon glass jug located in a cabinet. This jug collects the waste liquid solvent after it has flowed through the gel permeation chromatograph.
H	1-5	Indoors	View of the Chromatography Laboratory Hazardous Waste Accumulation Area (SWMU 1D) consisting of one one-gallon glass jug located on a table top. This jug collects the waste liquid solvent after it has flowed through the gel permeation chromatograph.
H	1-6	Indoors	View of the Chromatography Laboratory Hazardous Waste Accumulation Area (SWMU 1C) consisting of one one-gallon glass jug located on a table top within a hood.
H	1-7	Indoors	View of the spray booth located in the Analytical Laboratory Press Room. Booth used for painting plastics.
H	1-8	Indoors	View of the Analytical Laboratory Hazardous Waste Accumulation Area (SWMU 1E) consisting of two one-gallon glass jugs and one one-gallon plastic jug located on a table top within a hood.
H	1-9	Indoors	View of the Analytical Laboratory Hazardous Waste Accumulation Area (SWMU 1E) consisting of one two-gallon container located on the floor.
H	1-10	Indoors	View of the Nuclear Magnetic Resonance Laboratory Hazardous Waste Accumulation Area (SWMU 1F) consisting of one one-gallon glass jug located on a table top within a hood.
H	1-11	Indoors	View of the Polymer Modification Laboratory Hazardous Waste Accumulation Area (SWMU 1G) consisting of two two-gallon containers located on the floor.
H	1-12	Indoors	View of the Polymer Modification

Laboratory Hazardous Waste Accumulation Area (SWMU 1G) consisting of one two-gallon container and two one-gallon glass jugs located on the floor.

H 1-13 ~~Indoors~~ View of the Thick Film Processing Laboratory Hazardous Waste Accumulation Area (SWMU 1H) consisting of one two-gallon container located on the floor. *positioned on a plastic tray*

H 1-14 ~~Indoors~~ View of the Settling Basin (SWMU 8) covered with a grate and floor mats. Dried ceramic slurry material covered the grating and surrounding floor area.

H 1-15 ~~Indoors~~ View of the Wet Spray Booth (SWMU 9) containing dried ceramic slurry material on the grating and sides of the unit.

H 1-16 ~~Indoors~~ View of the Dust Collector (SWMU 6) located on a table with no visible dust in the area.

H 1-17 ~~Indoors~~ View of the Dust Collector (SWMU 6) hose nozzle.

H 1-18 ~~Indoors~~ View of the Limestone Sump (SWMU 10) closed and covered with dried, plastic dust material.

H 1-19 ~~Indoors~~ View of the Plastics Staging Area (SWMU 5) consisting of large plastic drums. *Is this associated w/ a SWMU?*

H 1-20 ~~Indoors~~ View of the Clean Room Laboratory Hazardous Waste Accumulation Area (SWMU 1I) consisting of two two-gallon containers located on small drums on the floor. *Is this associated w/ a SWMU?*

H 1-21 North View of the sump for stormwater collection at the loading dock area. The grate was damp and covered with a metal grating.

H 1-22 ~~Indoors~~ View of the Solvent Room Accumulation Area (SWMU 2) containing 4 55-gallon steel drums. The drums were closed with rusted tops. *four*

H 1-23 South View of the Current Hazardous Waste Container Storage Area (SWMU 3) containing one 55-gallon steel drum. The drum was closed with a rusted top.

H 1-24 North View of the eight-cubic yard dumpster for general office refuse located at the loading dock.

H 1-25 East View of the six-cubic yard dumpster for general office refuse located at the Data Center loading dock.

H 1-26 West View of location of Former Hazardous Waste Container Storage Area (SWMU 4). The exact location of the former unit is currently six feet below grade.

H 1-27 Indoors View of the pump to remove collected stormwater from the loading dock sump. The collected stormwater is deposited in the stormwater sewer system.

discharged

OCT 8 1992

HRP-8J

Mr. J.D. Barish
Director, Environmental Affairs
Ferro Corporation
4150 E. 56th Street
Cleveland, Ohio 44105

RE: Revised Visual Site Inspection
(VSI) Agenda
Ferro Corporation Technical Center
Independence, Ohio
OHD 000 817 205

Dear Mr. Barish:

This letter is to advise you of the Revised Proposed Agenda for the rescheduled Visual Site Inspection (VSI) on Wednesday, October 14, 1992, at Ferro's Technical Center in Independence, Ohio.

A copy of the proposed VSI agenda (Attachment I) is enclosed. Should you have any questions regarding this letter, please contact Mark Sattelberg, the EPA Work Assignment Manager, who can be reached at (312) 353-9184 or Ms. Carrie Ericson of A.T. Kearney at (312) 993-8736.

Sincerely,

Harriet Croke, Chief
Ohio Permitting Section

Enclosure

cc: Ed Lim, OEPA-CO

bcc: Bernie Orenstein, EPA Region 5
R. Young, A.T. Kearney

AA 10/10/92

CONCURRENCE REQUESTED FROM RPB			
OTHER STAFF	RPB STAFF	RPB SECTION CHIEF	RPB BRANCH CHIEF
Kin 10-6	RBS 10-6	171C 10/8/92	

A.T. Kearney, Inc.
222 South Riverside Plaza
Chicago, Illinois 60606
312 648 0111
Facsimile 312 648 1939-2302

Management
Consultants

ATKEARNEY

October 6, 1992

RECEIVED
OCT 6 1992

OFFICE OF RCRA
Waste Management Division
U.S. EPA REGION V

Mr. Bernie Orenstein
Regional Project Officer
U.S. Environmental Protection Agency
Region V
77 W. Jackson Blvd.
Chicago, Illinois 60604

Reference: EPA Contract No. 68-W9-0040; Work Assignment No.
RO5-25-05; Ferro Corporation Technical Center;
Independence, Ohio; EPA I.D. No. OHD000817205;
Revised Visual Site Inspection Agenda

Dear Mr. Orenstein:

Enclosed please find the Revised Agenda for the Visual Site Inspection (VSI) for the above-referenced facility. The revision in the agenda was necessary due to a delay in the date of the VSI which was a result of the facility representatives not being available for the proposed VSI date specified in the original VSI Notification Deliverable. The change in the VSI did not impact the PA/VSI Report schedule or estimated project costs.

Should you have any questions or require additional information, please feel free to contact me.

Sincerely,



Robert Young
Acting Technical Director

Enclosure

cc: M. Sattelberg, USEPA Region V
B. Jordan
L. Poe
S. Shermak
C. Ericson
T. Lavender-Gates (w/o enc)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

77 WEST JACKSON BOULEVARD

CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

HRP-8J

Mr. J. D. Barish
Director, Environmental Affairs
Ferro Corporation
4150 E. 56th Street
Cleveland, Ohio 44105

Re: Revised Visual Site Inspection
(VSI) Agenda
Ferro Corporation Technical
Center
Independence, Ohio
OHD 000 817 205

Dear Mr. Barish:

This letter is to advise you of the Revised Proposed Agenda for the rescheduled Visual Site Inspection (VSI) on Wednesday, October 14 at Ferro's Technical Center in Independence, Ohio.

A copy of the proposed VSI agenda (Attachment I) is enclosed. Should you have any questions regarding this letter, please contact Mark Sattelberg, the EPA Work Assignment Manager, who can be reached at (312) 353-9184 or Ms. Carrie Ericson of A.T. Kearney at (312) 993-8736.

Sincerely,

Francine Norling, Acting Chief
Ohio Permitting Section

Enclosure

cc: E. Lim, OEPA

bcc: B. Orenstein, EPA Region V
R. Young, A.T. Kearney

Ferro Corporation
Independence, Ohio
Visual Site Inspection
October 14, 1992

ATTACHMENT I

PRELIMINARY ASSESSMENT/
VISUAL SITE INSPECTION AGENDA

FACILITY: Ferro Corporation Technical Center
Independence, Ohio

EPA I.D. No.: OHD000817205

FACILITY CONTACT: J. D. Barish

DATES OF INSPECTION: October 14, 1992

PERSONNEL: Carrie Ericson, A.T. Kearney, Inc.
Shereen Shermak, A.T. Kearney, Inc.
Mark Sattelberg, U.S. EPA, Region V may
be present

PROPOSED INSPECTION SCHEDULE

Introductory Meeting: 11:00 a.m., October 14, 1992

The project team will meet with Ferro Corporation
representatives to discuss the following issues:

- Purpose of visit;
- Agenda;
- Health and safety considerations;
- Transportation arrangements;
- Information needs; and
- Agenda revisions.

Inspection Tour: 1:00 p.m., October 14, 1992

Close-out Meeting: 4:00 p.m., October 14, 1992



RECEIVED

OCT 06 1992

OFFICE OF RCRA
Waste Management Division
U.S. EPA REGION V
October 2, 1992

FERRO CORPORATION
4150 EAST 56TH STREET
P. O. BOX 6550
CLEVELAND, OHIO 44101
TELEPHONE: (216) 641-8580
TELEX: 98-0165
FAX: (216) 641-1771

Ms. Carrie Ericson
A. T. Kearney, Inc.
222 South Riverside Plaza
Chicago, Illinois 60606

Dear Ms. Ericson:

Confirming our agreement, you and your associates will conduct a Visual Site Inspection (VSI) on Wednesday, October 14, 1992 at Ferro's Technical Center in Independence, Ohio. The VSI is authorized under the Hazardous and Solid Waste Amendments of 1984 and is intended to evaluate the potential for hazardous waste releases.


Ferro's Corporate Research/Technical Center is located at 7500 East Pleasant Valley Road in Independence, Ohio, a suburb south of Cleveland. Ferro personnel will be present to provide you a tour of the facility and assist you in your inspection. They are:

Dave Harrison - Manager, Administration
Eldrige White - Manager, Analytical Laboratories
Paul Angus - Environmental Compliance Engineer

We apologize for any inconvenience we may have caused and appreciate your cooperation in changing your schedule. The address on the letter sent to me was correct except for the Zip Code. The Zip for my address is 44105 rather than 44101.

We will have the answers to your Preliminary Information Questionnaire available for your visit. Please call if there is anything else you need for your visit.

Very truly yours,


J. D. Berish
Manager, Corporate Environmental
Affairs

JDB/ac

cc: F. Norling - U.S.E.P.A.
M. Sattelberg - U.S.E.P.A.
M. Olszewski - Corporate Legal Department
E. White - Corporate Research-Technical Center
D. Harrison - Corporate Research-Technical Center
P. Angus - Corporate Environmental Affairs



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

77 WEST JACKSON BOULEVARD

CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

HRP-8J

Mr. J. D. Barish
Director, Environmental Affairs
Ferro Corporation
4150 E. 56th Street
Cleveland, Ohio 44101

Re: Visual Site Inspection (VSI)
Ferro Corporation Technical
Center
Independence, Ohio
OHD 000 817 205

Dear Mr. Barish:

The United States Environmental Protection Agency (U.S. EPA) Region V has requested A.T. Kearney, Inc., U.S. EPA's RCRA Implementation Contractor, to conduct a Preliminary Assessment/Visual Site Inspection (PA/VSI) at Ferro Corporation's Technical Center in Independence. Under the 1984 Hazardous and Solid Waste Amendments (HSWA), a PA/VSI is required of the Independence facility. The assessment requires identification and systematic review of all solid waste streams at the facility. The objective of this assessment is to determine whether or not releases of hazardous wastes or hazardous constituents have occurred or are occurring at the site which require further investigation. This analysis will provide information to establish priorities for subsequent remedial investigations.

An integral part of this assessment is a Visual Site Inspection (VSI) of your facility to verify the location of all "Solid Waste Management Units" (SWMUs) and to make a cursory determination of their condition by visual observation. The VSI supplements and updates data gathered during a preliminary file assessment. During this site visit, no samples will be taken.

Assistance of some of your personnel may be required in reviewing solid waste flow(s) or previous disposal practices. This site visit is to provide a technical understanding of the present and past waste flows and handling, treatment, storage, and disposal practices. Photographs of each SWMU are to be taken to document the condition of each unit at the facility and the waste management procedures used.

The VSI inspection team will be visiting another facility in the area the morning of October 1, 1992. Therefore, the VSI at your facility has been tentatively scheduled for the afternoon of October 1, 1992. However, if the morning inspection requires additional time, it may be necessary to postpone the VSI at your facility until the morning of October 2, 1992.

The A.T. Kearney inspection personnel may be accompanied by a U.S. EPA Region V representative. Your cooperation in assisting them while on site is appreciated.

In preparation for the VSI, the inspection personnel are required to identify any potentially hazardous conditions likely to be encountered at the site during performance of the VSI and to prepare a safety plan that deals with the hazards, if necessary. You will be contacted by an A.T. Kearney Health and Safety Officer by telephone in the near future to obtain specific information on the level(s) of personal protection required and materials handled in each area of your facility.

A copy of the proposed VSI agenda (Attachment I) is enclosed. Please review and gather the information requested in Attachment II, the information needs list, prior to the VSI. Should you have questions regarding this letter, please contact Mark Sattelberg, the EPA Work Assignment Manager, who can be reached at (312) 353-9184 or Ms. Carrie Ericson of A.T. Kearney at (312) 993-8736. Also, please contact me if you would like to request a copy of the PA/VSI report when completed, excluding Section V (Conclusions and Suggested Further Actions).

Sincerely,

Francine Norling, Acting Chief
Ohio Permitting Section

Enclosure

cc: E. Lim, OEPA

bcc: B. Orenstein, EPA Region V
R. Young, A.T. Kearney

Ferro Corporation
Independence, Ohio
Visual Site Inspection
October 1, 1992

ATTACHMENT I

PRELIMINARY ASSESSMENT/
VISUAL SITE INSPECTION AGENDA

FACILITY: Ferro Corporation Technical Center
Independence, Ohio

EPA I.D. No.: OHD000817205

FACILITY CONTACT: J. D. Barish

DATES OF INSPECTION: October 1, 1992

PERSONNEL: Carrie Ericson, A.T. Kearney, Inc.
Shereen Shermak, A.T. Kearney, Inc.
Mark Sattelberg, U.S. EPA, Region V may
be present

PURPOSE OF INSPECTION:

The Hazardous and Solid Waste Amendments of 1984 (HSWA) broaden the Scope of the Environmental Protection Agency's (EPA's) authority under the Resource Conservation and Recovery Act (RCRA) by requiring corrective action for releases of hazardous wastes and constituents at facilities that manage hazardous wastes. The Preliminary Assessment/Visual Site Inspection is conducted to evaluate the potential for releases to the environment and the need for corrective action.

The RFA includes a desk-top Preliminary Assessment (PA) of available file information and a Visual Site Inspection (VSI) of the facility. Based on the review of available data for this facility, a VSI has been determined to be necessary. The purpose of the VSI is to:

1. Survey the site for hydrologic, geologic, and surficial features.
2. Identify Solid Waste Management Units (SWMUs) and other Areas of Concern (AOCs), documenting and photographing all SWMUs and other AOCs.
3. Review site information with facility representatives.

Ferro Corporation
Independence, Ohio
Visual Site Inspection
October 1, 1992

ATTACHMENT I (cont'd.)

INSPECTION ORGANIZATION

A two-member team from our contractor will perform a one-day VSI. Additional observers from the State of Ohio Environmental Protection Agency (OEPA) and U.S. EPA Region V may also attend. The time-frame of the inspection tour will be dependent on the total number of SWMUs identified at the facility, and the accessibility of those SWMUs. Contractor personnel will inspect waste generation and disposal areas such as container storage areas, surface impoundments, waste piles, former land disposal areas, and release pathways for release of wastes into the environment. An interview with the facility staff will be performed to develop a better understanding of past waste disposal practices. Pertinent geologic information consisting of well logs, USGS topographic maps, plat and zoning maps and surrounding land use patterns will be reviewed. The team will concentrate on developing a better understanding of the vertical and horizontal alignments of any surface impoundments, container storage areas, and any other waste generation, treatment, storage and disposal facilities. A review of the regional hydrogeology and site-specific data will be performed to make an assessment of depth to groundwater and its flow direction in the proximity of the SWMUs.

The overall rationale of this inspection plan is to enable the team to trace waste streams from process through treatment and disposal. Some adjustments to the agenda will more than likely be necessary to accommodate facility staff, geographical location of units and/or operational constraints.

Preliminary information needs have been submitted as Attachment II to aid Ferro Corporation in preparing for the site visit. These issues will be resolved in an introductory meeting during the VSI. A more efficient agenda may be arranged at that time to ensure that all SWMUs identified will be inspected.

Ferro Corporation
Independence, Ohio
Visual Site Inspection
October 1, 1992

ATTACHMENT I (Cont'd)

PROPOSED INSPECTION SCHEDULE

Introductory Meeting: 1:00 p.m., October 1, 1992

The project team will meet with Ferro Corporation representatives to discuss the following issues:

- Purpose of visit;
- Agenda;
- Health and safety considerations;
- Transportation arrangements;
- Information needs; and
- Agenda revisions.

Inspection Tour: 3:00 p.m., October 1, 1992

An inspection of the SWMUs and AOCs listed in Attachment I will be conducted. Photographs of these units and areas will be taken.

Close-out Meeting: 5:00 p.m., October 1, 1992

Project team members will meet with facility personnel to conclude the inspection visit. Outstanding issues and remaining information needs will be discussed. (This meeting may occur earlier in the day depending upon the progress of the inspection tour.)

Note that it may be necessary to postpone VSI activities until the morning of October 2, 1992. If this is the case, Ferro Corporation representatives will be contacted on October 1, 1992, and the following revised VSI schedule will be followed:

Introductory Meeting: 9:00 a.m., October 2, 1992

Inspection Tour: 11:00 a.m., October 2, 1992

Close-out Meeting: 1:00 p.m., October 2, 1992

Ferro Corporation
Independence, Ohio
Visual Site Inspection
October 1, 1992

ATTACHMENT I (Cont'd)

LIST OF POTENTIAL SWMUs AND AOCs

<u>SWMU No.</u>	<u>Name</u>
1	Hazardous Waste Container Storage Area
2	Laboratory Waste Accumulation Areas
3	Sanitary Water Treatment System - <i>Settling basin</i>
4	Current Trash Dumpsters
5	Oil/Water Separators — <i>none</i>

[Signature]

Ferro Corporation
Independence, Ohio
Visual Site Inspection
October 1, 1992

ATTACHMENT II

PRELIMINARY INFORMATION NEEDS FOR
PRELIMINARY ASSESSMENT/VISUAL SITE INSPECTION

1. Identify past and present SWMUs which have not been listed elsewhere in the VSI Agenda. Include a brief description of wastes managed in these units and the unit's period of operation. Units to identify include, but are not limited to, the following:
 - Above ground and underground waste storage tanks
 - Abandoned storage tanks
 - Waste storage units for solid and hazardous wastes which fall under the 90-day exemption from RCRA
 - All waste handling areas and associated activities including loading zones, transfer areas, and waste accumulation areas
 - All process and spill containment areas and sumps
2. Submit information relative to the history of the facility including former owners, site uses, manufacturing practices used, wastes generated, and existing buildings and/or structures.
3. Provide a list of air pollution control devices utilized at the facility. Describe, for each device, its permit history and regulatory status.
4. Provide facility maps, including all historical topographic maps and aerial photographs, which identify the locations of all plant operations (both past and present) and the SWMUs listed in the VSI agenda.
5. Provide copies of all current Federal and State permits granted, both past and current.
6. Provide inspection reports for any underground storage tanks at the facility, both former and present.
7. Provide a description of the current and former operations at the facility.

Ferro Corporation
Independence, Ohio
Visual Site Inspection
October 1, 1992

ATTACHMENT II (cont'd.)

8. Provide a description of the past and current sanitary and process sewage treatment systems utilized by the facility including a list of wastestreams treated. Include diagrams, process rates, and dates of operation, as well as sewer line distribution maps.
9. Provide a description of the past and current storm sewer system(s) utilized by the facility. Please include storm sewer line distribution maps, as well as the locations of surface water drainage ditches (if applicable).
10. Provide the locations of all septic tanks at the facility and describe any wastes other than domestic wastes which are discharged to the tanks.
11. Submit flow diagrams depicting current and former manufacturing processes, if available.
12. Provide a description of all the wastes and volumes of each waste generated at the facility and the waste management practices at the facility.
13. Provide the most current information regarding remediation and/or monitoring for each unit at the facility. Describe the media being remediated/monitored and the regulatory status of each of these units. Submit the analytical results of soil/water/air testing.
14. Provide a map depicting the locations of all monitoring wells, process and potable water existing at the facility. Where is water for fire protection obtained? Please provide copies of well logs for each of the domestic/process wells.
15. Provide information on all the units which have been closed or are currently undergoing closure activities. Provide copies of all closure plans and certifications.

Ferro Corporation
Independence, Ohio
Visual Site Inspection
October 1, 1992

ATTACHMENT II (cont'd.)

16. Provide a history of pollutant spills/releases for the facility. Information should include:
 - Date of release
 - Quantity of release or extent of release
 - Location
 - Description of product
 - Corrective action taken
 - Soil/water analyses results.
17. For each SWMU and AOC listed, please provide:
 - Date unit began operating
 - Date operations ceased (if applicable)
 - Dimensions of unit
 - Location of unit in the facility
 - Description and source of waste handled
 - Unit function
 - Material of construction
 - Release controls
 - History of releases
 - Analytical results of any soil/water/air testing for each SWMU/AOC
18. How is domestic refuse handled by the facility?
19. Indicate whether any areas of the facility exist within the 100-year floodplain. Describe the exact locations of those areas existing within the 100-year floodplain.

A.T. Kearney, Inc.
222 South Riverside Plaza
Chicago, Illinois 60606
312 648 0111
Facsimile 312 648 1939-2302

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ATKEARNEY

OFFICE OF RCRA
Waste Management Division
U.S. EPA REGION V

September 21, 1992

Mr. Bernie Orenstein
Regional Project Officer
U.S. Environmental Protection Agency
Region V
77 W. Jackson Blvd.
Chicago, Illinois 60604

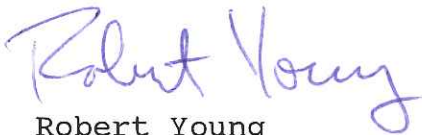
Reference: EPA Contract No. 68-W9-0040; Work Assignment No.
R05-25-05; Ferro Corporation Technical Center;
Independence, Ohio; EPA I.D. No. OHD000817205;
Visual Site Inspection Notification Deliverable

Dear Mr. Orenstein:

Enclosed please find the Visual Site Inspection (VSI)
Notification Letter and proposed Agenda and Information Needs
List for the above-referenced facility. The VSI is scheduled
for October 1, 1992.

Should you have any questions or require additional
information, please feel free to contact me.

Sincerely,



Robert Young
Acting Technical Director

Enclosure

cc: M. Sattelberg, USEPA Region V
B. Jordan
L. Poe
S. Shermak
C. Ericson
T. Lavender-Gates (w/o enc)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

HRP-8J

Mr. J. D. Barish
Director, Environmental Affairs
Ferro Corporation
4150 E. 56th Street
Cleveland, Ohio 44101

Re: Visual Site Inspection (VSI)
Ferro Corporation Technical
Center
Independence, Ohio
OHD 000 817 205

Dear Mr. Barish:

The United States Environmental Protection Agency (U.S. EPA) Region V has requested A.T. Kearney, Inc., U.S. EPA's RCRA Implementation Contractor, to conduct a Preliminary Assessment/Visual Site Inspection (PA/VSI) at Ferro Corporation's Technical Center in Independence. Under the 1984 Hazardous and Solid Waste Amendments (HSWA), a PA/VSI is required of the Independence facility. The assessment requires identification and systematic review of all solid waste streams at the facility. The objective of this assessment is to determine whether or not releases of hazardous wastes or hazardous constituents have occurred or are occurring at the site which require further investigation. This analysis will provide information to establish priorities for subsequent remedial investigations.

An integral part of this assessment is a Visual Site Inspection (VSI) of your facility to verify the location of all "Solid Waste Management Units" (SWMUs) and to make a cursory determination of their condition by visual observation. The VSI supplements and updates data gathered during a preliminary file assessment. During this site visit, no samples will be taken.

Assistance of some of your personnel may be required in reviewing solid waste flow(s) or previous disposal practices. This site visit is to provide a technical understanding of the present and past waste flows and handling, treatment, storage, and disposal practices. Photographs of each SWMU are to be taken to document the condition of each unit at the facility and the waste management procedures used.

The VSI inspection team will be visiting another facility in the area the morning of October 1, 1992. Therefore, the VSI at your facility has been tentatively scheduled for the afternoon of October 1, 1992. However, if the morning inspection requires additional time, it may be necessary to postpone the VSI at your facility until the morning of October 2, 1992.

The A.T. Kearney inspection personnel may be accompanied by a U.S. EPA Region V representative. Your cooperation in assisting them while on site is appreciated.

In preparation for the VSI, the inspection personnel are required to identify any potentially hazardous conditions likely to be encountered at the site during performance of the VSI and to prepare a safety plan that deals with the hazards, if necessary. You will be contacted by an A.T. Kearney Health and Safety Officer by telephone in the near future to obtain specific information on the level(s) of personal protection required and materials handled in each area of your facility.

A copy of the proposed VSI agenda (Attachment I) is enclosed. Please review and gather the information requested in Attachment II, the information needs list, prior to the VSI. Should you have questions regarding this letter, please contact Mark Sattelberg, the EPA Work Assignment Manager, who can be reached at (312) 353-9184 or Ms. Carrie Ericson of A.T. Kearney at (312) 993-8736. Also, please contact me if you would like to request a copy of the PA/VSI report when completed, excluding Section V (Conclusions and Suggested Further Actions).

Sincerely,

Francine Norling, Acting Chief
Ohio Permitting Section

Enclosure

cc: E. Lim, OEPA

bcc: B. Orenstein, EPA Region V
R. Young, A.T. Kearney

Ferro Corporation
Independence, Ohio
Visual Site Inspection
October 1, 1992

ATTACHMENT I

PRELIMINARY ASSESSMENT/
VISUAL SITE INSPECTION AGENDA

FACILITY: Ferro Corporation Technical Center
Independence, Ohio

EPA I.D. No.: OHD000817205

FACILITY CONTACT: J. D. Barish

DATES OF INSPECTION: October 1, 1992

PERSONNEL: Carrie Ericson, A.T. Kearney, Inc.
Shereen Shermak, A.T. Kearney, Inc.
Mark Sattelberg, U.S. EPA, Region V may
be present

PURPOSE OF INSPECTION:

The Hazardous and Solid Waste Amendments of 1984 (HSWA) broaden the Scope of the Environmental Protection Agency's (EPA's) authority under the Resource Conservation and Recovery Act (RCRA) by requiring corrective action for releases of hazardous wastes and constituents at facilities that manage hazardous wastes. The Preliminary Assessment/Visual Site Inspection is conducted to evaluate the potential for releases to the environment and the need for corrective action.

The RFA includes a desk-top Preliminary Assessment (PA) of available file information and a Visual Site Inspection (VSI) of the facility. Based on the review of available data for this facility, a VSI has been determined to be necessary. The purpose of the VSI is to:

1. Survey the site for hydrologic, geologic, and surficial features.
2. Identify Solid Waste Management Units (SWMUs) and other Areas of Concern (AOCs), documenting and photographing all SWMUs and other AOCs.
3. Review site information with facility representatives.

Ferro Corporation
Independence, Ohio
Visual Site Inspection
October 1, 1992

ATTACHMENT I (cont'd.)

INSPECTION ORGANIZATION

A two-member team from our contractor will perform a one-day VSI. Additional observers from the State of Ohio Environmental Protection Agency (OEPA) and U.S. EPA Region V may also attend. The time-frame of the inspection tour will be dependent on the total number of SWMUs identified at the facility, and the accessibility of those SWMUs. Contractor personnel will inspect waste generation and disposal areas such as container storage areas, surface impoundments, waste piles, former land disposal areas, and release pathways for release of wastes into the environment. An interview with the facility staff will be performed to develop a better understanding of past waste disposal practices. Pertinent geologic information consisting of well logs, USGS topographic maps, plat and zoning maps and surrounding land use patterns will be reviewed. The team will concentrate on developing a better understanding of the vertical and horizontal alignments of any surface impoundments, container storage areas, and any other waste generation, treatment, storage and disposal facilities. A review of the regional hydrogeology and site-specific data will be performed to make an assessment of depth to groundwater and its flow direction in the proximity of the SWMUs.

The overall rationale of this inspection plan is to enable the team to trace waste streams from process through treatment and disposal. Some adjustments to the agenda will more than likely be necessary to accommodate facility staff, geographical location of units and/or operational constraints.

Preliminary information needs have been submitted as Attachment II to aid Ferro Corporation in preparing for the site visit. These issues will be resolved in an introductory meeting during the VSI. A more efficient agenda may be arranged at that time to ensure that all SWMUs identified will be inspected.

Ferro Corporation
Independence, Ohio
Visual Site Inspection
October 1, 1992

ATTACHMENT I (Cont'd)

PROPOSED INSPECTION SCHEDULE

Introductory Meeting: 1:00 p.m., October 1, 1992

The project team will meet with Ferro Corporation representatives to discuss the following issues:

- Purpose of visit;
- Agenda;
- Health and safety considerations;
- Transportation arrangements;
- Information needs; and
- Agenda revisions.

Inspection Tour: 3:00 p.m., October 1, 1992

An inspection of the SWMUs and AOCs listed in Attachment I will be conducted. Photographs of these units and areas will be taken.

Close-out Meeting: 5:00 p.m., October 1, 1992

Project team members will meet with facility personnel to conclude the inspection visit. Outstanding issues and remaining information needs will be discussed. (This meeting may occur earlier in the day depending upon the progress of the inspection tour.)

Note that it may be necessary to postpone VSI activities until the morning of October 2, 1992. If this is the case, Ferro Corporation representatives will be contacted on October 1, 1992, and the following revised VSI schedule will be followed:

Introductory Meeting: 9:00 a.m., October 2, 1992

Inspection Tour: 11:00 a.m., October 2, 1992

Close-out Meeting: 1:00 p.m., October 2, 1992

Ferro Corporation
Independence, Ohio
Visual Site Inspection
October 1, 1992

ATTACHMENT I (Cont'd)

LIST OF POTENTIAL SWMUs AND AOCs

<u>SWMU No.</u>	<u>Name</u>
1	Hazardous Waste Container Storage Area
2	Laboratory Waste Accumulation Areas
3	Sanitary Water Treatment System
4	Current Trash Dumpsters
5	Oil/Water Separators

Ferro Corporation
Independence, Ohio
Visual Site Inspection
October 1, 1992

ATTACHMENT II

PRELIMINARY INFORMATION NEEDS FOR
PRELIMINARY ASSESSMENT/VISUAL SITE INSPECTION

1. Identify past and present SWMUs which have not been listed elsewhere in the VSI Agenda. Include a brief description of wastes managed in these units and the unit's period of operation. Units to identify include, but are not limited to, the following:
 - Above ground and underground waste storage tanks
 - Abandoned storage tanks
 - Waste storage units for solid and hazardous wastes which fall under the 90-day exemption from RCRA
 - All waste handling areas and associated activities including loading zones, transfer areas, and waste accumulation areas
 - All process and spill containment areas and sumps
2. Submit information relative to the history of the facility including former owners, site uses, manufacturing practices used, wastes generated, and existing buildings and/or structures.
3. Provide a list of air pollution control devices utilized at the facility. Describe, for each device, its permit history and regulatory status.
4. Provide facility maps, including all historical topographic maps and aerial photographs, which identify the locations of all plant operations (both past and present) and the SWMUs listed in the VSI agenda.
5. Provide copies of all current Federal and State permits granted, both past and current.
6. Provide inspection reports for any underground storage tanks at the facility, both former and present.
7. Provide a description of the current and former operations at the facility.

Ferro Corporation
Independence, Ohio
Visual Site Inspection
October 1, 1992

ATTACHMENT II (cont'd.)

8. Provide a description of the past and current sanitary and process sewage treatment systems utilized by the facility including a list of wastestreams treated. Include diagrams, process rates, and dates of operation, as well as sewer line distribution maps.
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15. Provide information on all the units which have been closed or are currently undergoing closure activities. Provide copies of all closure plans and certifications.

Ferro Corporation
Independence, Ohio
Visual Site Inspection
October 1, 1992

ATTACHMENT II (cont'd.)

16. Provide a history of pollutant spills/releases for the facility. Information should include:
 - Date of release
 - Quantity of release or extent of release
 - Location
 - Description of product
 - Corrective action taken
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A.T. Kearney, Inc.
222 South Riverside Plaza
Chicago, Illinois 60606
312 648 0111
Facsimile 312 648 1939-2302

Management
Consultants

1214 CE
ATKEARNEY

September 10, 1992

Mr. Bernie Orenstein
Regional Project Officer
U.S. Environmental Protection Agency
Region V, HRM7J
77 W. Jackson Boulevard
Chicago, IL 60604

Reference: EPA Contract No. 68-W9-0040; Work Assignment
No. R05-25-05; Ferro Corporation,
Independence, Ohio; EPA I.D. No. OHD000817205;
Preliminary Assessment/Visual Site Inspection;
Work Plan

Dear Mr. Orenstein:

Enclosed please find the proposed work plan which you requested for the above-referenced work assignment. This work plan calls for the Kearney Team to conduct a Preliminary Assessment/Visual Site Inspection (PA/VSI) at the above-referenced facility.

All applicable A.T. Kearney conflict of interest avoidance procedures have been adhered to for the proposed firms and staffs.

Also enclosed is a work plan approval sheet which you should sign and return to Allen Pearce. In accordance with the procedures for this contract and specific direction from the Contracting Officer, if the Contracting Officer has not provided written approval of this work plan by October 8, 1992, A.T. Kearney will stop work on this project. Once work is stopped, A.T. Kearney will not resume work until the Contracting Officer provides written approval of a work plan for this project.

A cursory review of file materials has indicated that approximately five to ten SWMUs exist at this facility. A one-day site visit will be required. Since the same VSI team has been selected for the Kalcor Coatings, Ohio PA/VSI (R05-25-06), we will arrange for two site visits to take place

Mr. Bernie Orenstein
September 10, 1992
Page Two

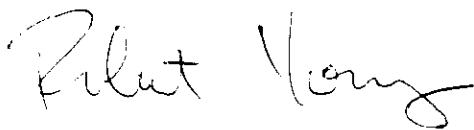
over a two-day time period. This will be possible because Kalcir and Ferro are located within an approximately one hour driving distance of one another. We believe that combining two VSIs in one trip will be the most efficient approach possible and will result in substantial savings in travel costs.

In order to determine the need for a site health and safety plan, or to prepare such a plan, the Kearney Team may need to obtain additional information from EPA or the facility personnel regarding the potential hazards at the site. If information is not provided to the level of detail required to properly assess potential hazards, A.T. Kearney reserves the right to delay proceeding with the site visit until the information is provided.

In cases where the Kearney Team must delay a site visit due to circumstances outside the Team's control, A.T. Kearney will accommodate the schedule change to the maximum extent possible. However, A.T. Kearney reserves the right to charge EPA for expenses incurred as a direct result of the delay. Any such expenses will be brought to EPA's attention as quickly as possible and will be properly documented.

Please feel free to call me or Carrie Ericson, the Kearney Team Work Assignment Manager (who can be reached at 312/993-8736), if you have any questions.

Sincerely,



Robert Young
Acting Technical Director

cc:	A. Pearce, EPA OSW	C. DeRosa
	C. Chase, EPA Contracts	L. Mix
	M. Sattelberg, EPA Region V	P. Davol
	W. Jordan	P. Williams
	L. Poe	T. Gates
	S. Shermak	B. Smith
	C. Ericson	
	L. Maher	

PROPOSED WORK PLAN

FERRO CORPORATION
INDEPENDENCE, OHIO
PRELIMINARY ASSESSMENT/VISUAL SITE INSPECTION REPORT
EPA I.D. NO. OHD000817205

Submitted by:

A.T. Kearney, Inc.
222 S. Riverside Plaza
Chicago, IL 60606

Submitted to:

Mr. Bernie Orenstein
Regional Project Officer
U.S. Environmental Protection Agency
Region V - HRM7J
77 West Jackson Boulevard
Chicago, IL 60604

In response to:

EPA Contract No. 68-W9-0040
Work Assignment No. R05-25-05

September 1992

EPA Contract No. 68-W9-0040
Work Assignment No. R05-25-05
Ferro Corporation
Independence, Ohio
PA/VSI Report
EPA I.D. No. OHD000817205

Work Plan Revision No. 0
September 10, 1992

Regional Work Plan Approval

I have reviewed the attached work plan and find it meets our criteria for technical accuracy and properly reflects the scope of work and intended use of the deliverable(s), as described in the work assignment. The projected cost, staff hour estimates, and labor mix are also acceptable.

APPROVAL:

EPA Regional Project Officer

Date

APPROVAL:

EPA Headquarters Project Officer

Date

APPROVAL:

EPA Contracting Officer

Date

CONCURRENCE:

A.T. Kearney Program Director

Date

EPA Contract No. 68-W9-0040
Work Assignment No. R05-25-05
Ferro Corporation
Independence, Ohio
PA/VSI Report
EPA I.D. No. OHD000817205

Work Plan Revision No. 0
September 10, 1992

FERRO CORPORATION
INDEPENDENCE, OHIO
PRELIMINARY ASSESSMENT/VISUAL SITE INSPECTION REPORT

WORK TO BE PERFORMED

The Kearney Team will conduct a Preliminary Assessment/ Visual Site Inspection (PA/VSI) of the Ferro Corporation, Independence facility, EPA I.D. No. OHD000817205, which includes performing a file search of State of Ohio EPA and U.S. EPA Region V files, conducting a Preliminary Assessment (PA) and Visual Site Inspection (VSI), and preparing a PA/VSI report evaluating the potential for release from each Solid Waste Management Unit (SWMU) and Area of Concern (AOC) identified during the PA/VSI. In addition, the Kearney Team will provide suggested further actions for each SWMU and AOC.

The site provides the research and data processing services for the various divisions of Ferro Corporation. According to available file materials, no "products" are produced at this location. Drums of hazardous waste previously stored onsite were removed in approximately 1983. Available files indicate that Ferro Corporation initially operated under interim status, but had changed its status to generator in 1984.

PRIMARY INTENDED USE

The purpose of this project is to assist EPA Region V in:

- (1) Identifying and gathering information on releases at the facility.
- (2) Evaluating SWMUs and AOCs for release potential to all media, and evaluating regulated units, subject to Subpart F requirements, for release potential to media other than groundwater.

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Independence, Ohio
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- (3) Making preliminary determination regarding releases of concern and the need for further actions.
- (4) Providing sufficient information so that the EPA may score the site as part of Region V's Environmental Priorities Initiative. Specific data provided will include releases and migratory routes to groundwater, surface water, air and on-site media. Potential receptors of releases to these media will also be assessed.

The final PA/VSI Report will be suitable for use by EPA in the administrative record for the facility.

PROJECTS AND TASKS

The project will consist of the following tasks:

Task 01 - Prepare a work plan. This will include all preliminary contacts, including the EPA Work Assignment Manager (EPA WAM) and state representative, required for the preparation of the work plan, and file searches at the Ohio EPA offices in Cleveland and Columbus. Files will also be obtained from U.S. EPA Region V.

Files to be reviewed include RCRA, NPDES, CERCLA, and Air Quality, as well as any Solid Waste files and emergency response or spill notifications.

The Kearney Work Assignment Manager (KWAM) will contact the facility to schedule the Visual Site Inspection (VSI).

Task 02 - Conduct a Preliminary Assessment (PA) of the existing file material to identify the need for additional information, and to provide focus for activities to be conducted during the Visual Site Inspection (VSI).

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Ferro Corporation
Independence, Ohio
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The VSI Notification Letter will be prepared by A.T. Kearney and submitted to EPA on EPA letterhead. This task also includes identification of the safety hazards anticipated during the VSI; the completion of a Health and Safety Checklist; and the review of the Health and Safety requirements for the VSI by Kearney's Health and Safety Director.

To prepare for the VSI, the Kearney Team will complete a Health and Safety Checklist to identify the activities and potential hazards at the site. The Health & Safety Checklist will be reviewed for approval by the Kearney Health and Safety Director, who will determine if the checklist is adequate or a site-specific Health and Safety Plan is necessary.

Task 03 - Prepare for and conduct the VSI. It is estimated that the VSI will require a one-day site visit, along with the associated travel time. This task includes preparation of field equipment to be used during the VSI.

Prior to the VSI, the Kearney Team will discuss the agenda and goals of the VSI with the EPA WAM. The objectives of the VSI will include the following:

- Verifying the information collected during the PA, including the location and condition of the SWMUs and AOCs;
- Identifying any additional SWMUs and AOCs;
- Visually inspecting and obtaining factual information to properly characterize all SWMUs and AOCs; documenting field observations with photographs and field logs;
- Reviewing site information with the facility representative and collecting additional information to be used in determining the need for further actions;
- Documenting observations of potential receptors in the vicinity of the facility;
- Identifying possible future sampling locations as appropriate.

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September 10, 1992

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Task 04 - Prepare a PA/VSI report according to the format presented as an attachment to Work Assignment R05-22 provided by Region V. In addition, a brief cover letter will accompany the PA/VSI Report, highlighting major findings. In addition to a brief discussion of suggested further actions at each SWMU and AOC, a table will be included which highlights these suggested further actions.

This task will also include the preparation of a Corrective Action Stabilization Questionnaire. If we feel that stabilization technologies are appropriate for SWMUs or AOCs at this facility, a one-to-two paragraph explanation detailing the rationale for suggesting stabilization activities will be included as an attachment to the questionnaire.

Task 98 - Perform a quality control review of the draft deliverables.

Task 99 - Provide management oversight for the project.

HEALTH AND SAFETY PLAN

In preparing for the site visit, the Kearney Team will complete a site-specific checklist to identify the activities and potential hazards at the site. Information to complete the checklist will be obtained from the Regional Project Officer, EPA WAM, and/or other EPA staff who are knowledgeable about the site, and from the facility contact.

After the checklist has been completed, a determination will be made by the A.T. Kearney Health and Safety Director regarding the need for a health and safety plan for the site visit based on the anticipated hazards at the site. In cases where a health and

EPA Contract No. 68-W9-0040
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Independence, Ohio
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safety plan is required, the Kearney Team will develop a specific plan for the site and amend the work plan to include an additional task to provide for resources for plan development. In cases where no health and safety plan is required (i.e., minimal hazard potential), the Kearney Team will follow health and safety procedures as outlined in the Kearney Staff Protocol for site visits.

MONTHLY PROGRESS REPORT

Information regarding the status of this project will be included in the monthly progress reports A.T. Kearney, Inc. provides to EPA. The information will address:

- Work completed to date;
- Difficulties encountered and remedial action taken;
- Anticipated activity during the subsequent reporting period; and
- Sufficiency of authorized dollars and hours to complete the project.

QUALITY CONTROL PLAN

The Kearney Team Work Assignment Manager (KWAM) will conduct milestone checks on each task. In addition, draft project deliverables will be reviewed by a senior technical staff member of Kearney/Centaur to ensure quality and consistency with EPA regulations and policy.

STAFFING AND MANAGEMENT

Carrie Ericson of A. T. Kearney, Inc. will serve as the Kearney Team Work Assignment Manager (KWAM).

EPA Contract No. 68-W9-0040
Work Assignment No. R05-25-05
Ferro Corporation
Independence, Ohio
PA/VSI Report
EPA I.D. No. OHD000817205

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Individual staff responsibilities are shown in Attachment I. The proposed staffing and task assignments for the project are shown in Attachment II. Hour allocations are shown for each task.

All applicable conflict of interest (COI) avoidance procedures have been adhered to for the proposed firms and staffs.

PERFORMANCE SCHEDULE

The project will be conducted according to the schedule shown in Attachment III.

COST ESTIMATE

The estimated cost for completing this project is included as Attachment IV.

BASIS FOR PERFORMANCE EVALUATION

The measures for evaluation of work assignment performance are described for each of the following performance criteria: technical quality; compliance with schedule; compliance with budget; management; and editorial quality. Measures for each of these criteria are discussed and agreed upon by the RPO and the Kearney Team WAM during the assignment planning process. To the extent possible, clear, quantitative measures should be established.

EPA Contract No. 68-W9-0040
Work Assignment No. R05-25-05
Ferro Corporation
Independence, Ohio
PA/VSI Report
EPA I.D. No. OHD000817205

Work Plan Revision No. 0
September 10, 1992

ATTACHMENT I

STAFF RESPONSIBILITY CHART

<u>Staff</u>	<u>Role</u>	<u>Areas of Responsibility</u>
R. Young	Acting Technical Director	Management oversight.
T. Gates	Technical Assistant to the Technical Director	Administrative support, such as: perform COI checks, assemble and edit work plans, project tracking, general completeness review of deliverables, and distribute documents.
C. Ericson	Kearney Team Work Assignment Manager/ Regional Liaison/ Technical Staff	Day-to-day management of the project; VSI team member; prepare PA/VSI report; initiate work, monitor project planning and implementation, and conduct project performance evaluation; VSI team member; prepare PA/VSI Report.
S. Shermak	Technical Staff	PA/VSI team member; prepare PA/VSI Report.
C. DeRosa	Technical Staff	Conduct file searches at OEPA offices.
L. Mix	Technical Staff	Conduct file searches at OEPA offices.
P. Williams	Director Health and Safety	Review health and safety checklist prior to a site visit.
P. Davol	Quality Control Reviewer	Senior-level technical review of final deliverable

EPA Contract No. 68-W9-0040
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 Ferro Corporation
 Independence, Ohio
 PA/VSI Report
 EPA I.D. No. OHD000817205

Work Plan Revision No. 0
 September 10, 1992

ATTACHMENT II

STAFFING

STAFF			TASK						
Name	1/ Firm	2/ Labor Category	01	02	03	04	3/ 98	4/ 99	TOTAL
<u>Technical Director</u>									
R. Young	ATK	P3	6	-	-	-	-	16	22
<u>Work Assignment Manager</u>									
C. Ericson	ATK	P2	4	-	-	-	-	8	12
<u>Staffing</u>									
C. Ericson	ATK	P2	2	28	14	60	-	2	106
S. Shermak	ATK	P2	-	-	14	8	-	-	22
T. Gates	ATK	T1	8	-	-	-	-	12	20
Tech. Support	ATK		5	2	-	30	-	5	42
L. Mix	K/C	P3	5	-	-	-	-	-	5
C. DeRosa	K/C	P2	5	-	-	-	-	-	5
P. Williams	K/C	P4	-	2	-	-	-	-	2
<u>Quality Control</u>									
P. Davol	K/C	P4	-	-	-	-	10	-	10
TOTALS			35	32	28	98	10	43	246

- 1/ ATK = A.T. Kearney, Inc.
 K/C = Kearney/Centaur, a Division of A.T. Kearney, Inc.
 2/ Provides Labor Classification for Each Staff Person (e.g., P4, P3)
 3/ Task 98 = Quality Control
 4/ Task 99 = Project Management

EPA Contract No. 68-W9-0040
Work Assignment No. R05-25-05
Ferro Corporation
Independence, Ohio
PA/VSI Report
EPA I.D. No. OHD000817205

Work Plan Revision No. 0
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ATTACHMENT III

SCHEDULE

<u>Task</u>	<u>Milestone #</u>	<u>Description</u>	<u>Scheduled Date</u>
01	01	Prepare work plan	09/10/92
02	02	Submit VSI Notification letter to EPA	09/18/92
02	03	Submit Health and Safety Checklist to Health and Safety Director for review	09/25/92
02	04	Health and Safety Director provides comments on Health and Safety Checklist, determines whether a site-specific health and safety plan is needed	10/02/92
03	05	Conduct Visual Site Inspection	10/13/92
03	06	Conduct conference call with EPA WAM regarding VSI and potential change in scope of work	10/15/92
98	07	Submit draft PA/VSI report to QC	11/02/92
04	08	Submit QC comments to KWAM	11/09/92
04	09	Submit PA/VSI report to TD	11/13/92
04	10	Submit PA/VSI report to EPA	11/20/92
99	11	Project Management	In accordance with above milestones

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ATTACHMENT IV-A

TRAVEL TABLE

<u>TOTAL TRIPS</u>	<u>TOTAL PEOPLE</u>	<u>FROM/TO^{1/}</u>	<u>TOTAL TRAIN/ AIR FARE</u>	<u>TOTAL DAYS</u>	<u>TOTAL^{2/} HOTEL</u>	<u>TOTAL^{2/} MEALS</u>	<u>RENTAL CAR</u>	<u>TOTAL^{3/} LOCAL TRAVEL</u>	<u>TOTAL COST</u>
1	2	Chicago, IL/ ^{4/} Cleveland, OH	^{5/} \$300	2	\$152	\$ 68	\$ 50	\$ --	\$ 570
<u>1</u>	<u>2</u>	New York, NY Cleveland, OH	<u>^{5/} 180</u>	<u> 3</u>	<u> 40</u>	<u> 40</u>	<u> 30</u>	<u> 25</u>	<u> 315</u>
2	4	TOTAL	\$ 480	5	\$192	\$108	\$ 80	25	\$ 885

NOTES:

^{1/} All trips are roundtrip unless otherwise specified.

^{2/} Estimates for hotel and meals are based on allowable per diem rates for the destination city. The estimates are calculated from the total days (e.g., 2 days in New York, Hotel = 2 x \$107; Meals = 2 x \$34 and 2 days in Colts Neck, NJ, Hotel = 2 x \$59; Meals = 2 x \$34).
^{3/} Local travel includes cab fare, public transportation, mileage, parking and tolls.

^{4/} In cases of file searches, Regional meetings, etc., travel costs may be divided among several projects; therefore, only a portion of the costs will be shown for each project.

^{5/} Task 01

^{6/} Task 03 (Travel costs for this task reduced because the costs will be divided between two facilities)

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ATTACHMENT IV-B

ESTIMATED COST

<u>A.T. Kearney, Inc.</u>	<u>Hours</u>	<u>Cost</u>
Labor	246	\$ 8,777
Travel & Subsistence		885
Other Direct Costs		
Supplies (log books, film)	\$ 54	
Office Support Labor	215	
Photocopy	215	
Postage/Delivery	161	
Telephone/FAX	107	
Misc. Expense (off-site file storage, subcontract administration, etc.)	215	
PC Recovery	108	
Total ODC Costs		\$ <u>1,075</u>
SUBTOTAL		\$ <u>10,737</u>
<u>A.T. Kearney, Inc.</u>		
Fee - 3% Base		\$ 322
- 3% Award		<u>322</u>
Subtotal		\$ 644
TOTAL ESTIMATED COST	<u>246</u>	\$ <u>11,381</u>

AVERAGE LABOR COST
PER HOUR FOR ALL FIRMS \$35.68
WORK PLAN AVERAGE HOURLY RATE \$46.26

A.T. Kearney, Inc.
222 South Riverside Plaza
Chicago, Illinois 60606
312 648 0111
Facsimile 312 648 1939-2302

Management
Consultants

August 20, 1992

ATKEARNEY

Mr. Bernie Orenstein
Regional Project Officer
U.S. Environmental Protection Agency
Region V-HRM7J
77 West Jackson Boulevard
Chicago, Illinois 60604

Reference: EPA Contract No. 68-W9-0040; Work Assignment
No. R05-25-05; Ferro Corporation Technical
Center; Independence, Ohio; EPA I.D. No.
OHD000817205; Preliminary Assessment/Visual
Site Inspection; Project Status Determination

Dear Mr. Orenstein:

This letter will serve to update you on the current status of Preliminary Assessment/Visual Site Inspection (PA/VSI) activities and regulatory issues at the Ferro Corporation Technical Center (Ferro) facility in Independence, Ohio.

File materials have been obtained from the State of Ohio and the U.S. EPA. The available files indicate that a RCRA Part A Hazardous Waste Permit (Part A) Application was submitted by the facility in November 1980. The Part A identified a container storage area (S01) as a hazardous waste unit. U.S. EPA acknowledged the receipt of the Part A in April 1982, and indicated that the facility met the requirements for operating under interim status.

In April 1988, U.S. EPA called-in the facility's Part B permit application, while presenting the option to submit a closure plan. The facility responded to the call-in by indicating that the OEPA had withdrawn Ferro's Part A application, and had changed the facility's status to "generator." Ferro cited an April 8, 1987 letter in which OEPA indicated that the facility was not subject to financial responsibility rules because Ferro "withdrew its Part A permit and certified closure of its hazardous waste facilities on September 24, 1984 and retained its status as a generator only of hazardous waste." The alleged September 24, 1984 closure document was not located in the available file materials.

In December 1988, U.S. EPA responded to Ferro's facility status claim by requesting a certification of the September 24, 1984 RCRA closure. Files indicate that Ferro contracted

Mr. Bernie Orenstein
August 20, 1992
Page Two

a Professional Engineer (PE) from WC Midwest Company to certify the closure on March 8, 1989. According to the certification, the PE reviewed the closure document and photographs of the permitted storage area and performed a visual inspection of the area. Based on the review, the PE certified the closure according to 40 CFR 265.115. There is no U.S. EPA response to the closure certification in the available file materials.

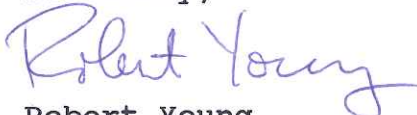
A closure plan was not located within the available file materials (either state or federal), nor was the closure certification which allegedly occurred in September 1984. Therefore the adequacy of the closure activities at the facility could not be assessed. In addition, there is no indication of closure plan approval by the state within the available files.

Based on the fact that Ferro Corporation operated an interim status container storage area from 1980 to 1984, it is my recommendation that a PA/VSI be conducted at this facility. I have briefed Mark Sattelberg concerning the status of this facility and Mr. Sattelberg has indicated that he will further investigate the regulatory status of this facility and will subsequently make a decision whether to continue with PA/VSI activities.

Pertinent file materials which explain the scenario of events described above have been included as an attachment to this letter. These file documents should help in determining whether PA/VSI activities will be necessary at the Ferro facility.

Should you have any questions or require additional information, please feel free to contact me at
(312) 993-8829.

Sincerely,



Robert Young
Acting Technical Director

Enclosure

cc: M. Sattelberg, EPA Region V
B. Jordan
L. Poe
A. Williams w/o attach

PRELIMINARY ASSESSMENT/VISUAL SITE INSPECTION

of the

Ferro Corporation/~~X~~ Technical Center

Independence, Ohio

EPA I.D. No. OHD000817205

Work Assignment No. R05-25-05

NEEDS
FORMAT

TD/TA
Comments

FERRO CORPORATION/ TECHNICAL CENTER
INDEPENDENCE, OHIO
EPA I.D. No. OHD000817205

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FERRO CORPORATION/~~X~~ TECHNICAL CENTER
INDEPENDENCE, OHIO
EPA I.D. No. OHD000817205

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- 3-1 Laboratory Hazardous Satellite Waste Accumulation Areas

FIGURES

- 1 Facility Location Map
- 2 SWMU Location Map
- 3 Laboratory SWMU Location Map

NEEDS
COMPLETE
TOC

BOLD
EXECUTIVE SUMMARY OHD

A Preliminary Assessment/Visual Site Inspection (PA/VSI) was conducted at the Ferro Corporation's Technical Center, Independence, Ohio facility (EPA I.D. No. 000817205). The purpose of the PA/VSI was to assess the potential for releases from solid waste management units (SWMUs) and areas of concern (AOCs) at the facility. This PA/VSI Report summarizes the findings of the review of the available file materials and the visual site inspection (VSI), which was conducted on October 14, 1992. In addition, a completed Corrective Action Stabilization Questionnaire is included as Attachment A to assist in the prioritization of RCRA facilities.

Ferro Corporation's Technical Center serves as a research and development center for Ferro Corporation. The Technical Center conducts both short and long-range research programs for Ferro operations. The R&D facility conducts tests and analysis of polymeric, organic, inorganic, and composite materials. Supporting activities include computer programming and statistical analysis. Ferro began operations in 1969 at this facility.

Ten SWMUs were identified during the PA/VSI. These are listed as follows:

<u>Solid Waste Management Unit</u>	<u>Name</u>
1	Laboratory Hazardous Satellite Waste Accumulation Areas (SAAs) (IA-II)
2	Solvent Room Accumulation Area (AA)
3	Current Hazardous Waste Container Storage Area
4	Former Hazardous Waste Container Storage Area
5	Plastics Staging Area
6	Dust Collector
7	Settling Basin
8	Wet Spray Booth
9	Neutralization Tank
10	Spray Booth Filter Accumulation Areas (AA) Dumpsters

Of the ten SWMUs listed above, nine of the SWMUs are currently active and operating at the facility. The Former Hazardous Waste Container Storage Area (SWMU 4) was closed by the facility in 1984. However, the status of the unit has been in question with the OEPA and the U.S. EPA since 1984. Certification of closure of the unit was not submitted to the U.S. EPA until August, 1989. U.S. EPA authorization of certification is on hold, pending the facility submittal and Agency approval of the closure plan used to close the unit.

Threat of release to air, surface water, groundwater and soils surrounding the facility from the majority of the SWMUs is low. SWMUs 1, 2 and 5 - 9 are located indoors within appropriate

i

containment areas. The Current Hazardous Waste Container Storage Area (SWMU 3) is located outdoors, ~~within an appropriate containment area~~. It was impossible to assess the release potential for the Former Hazardous Waste Container Storage Area (SWMU 4) because it is located approximately six feet below grade in the parking area. It is ~~recommended~~ that the facility submit a copy of the closure plan used to close this unit to the U.S. EPA for review. After the closure plan has been reviewed, it may be possible to determine the past potential for release ~~from~~ ^{from this} unit.

above a concrete pad.

Suggested

which has been regraded since the unit's operational years.

HP Integrity is suggested for two units identified at the facility, the Settling Basin (SWMU 7) and the Neutralization Tank (SWMU 9). Because both these units are located underground, the integrities of the units could not be assessed during the VSI. Additionally, the Settling Basin manages solids which have been determined to be hazardous and the Neutralization Tank manages contact cooling water.

1.0 INTRODUCTION

Preliminary Assessment/Visual Site Inspections (PA/VSI) are being performed at several RCRA facilities in Region V as part of the United States Environmental Protection Agency's (EPA's) Environmental Priorities Initiative. Through the initiative, EPA Region V is prioritizing RCRA facilities for corrective action. Through the PA/VSI process, sufficient information is obtained to characterize a facility's actual or potential releases to the environment from solid waste management units (SWMUs) and areas of concern (AOCs).

This report presents the results of the PA/VSI for the Ferro Corporation's Technical Center in Independence, Cuyahoga County, Ohio. The facility EPA I.D. No. is OHD000817205. The information used in preparing this report was compiled from State of Ohio Environmental Protection Agency (OEPA) files, EPA Region V files, and information gathered during the VSI.

The purposes of the PA are to:

- * Identify SWMUs and AOCs at the facility.
- * Obtain information on the operational history of the facility.
- * Obtain information on releases from any units at the facility.
- * Identify data gaps and other informational needs to be filled during the VSI.

The purposes of the VSI are to:

- * Identify SWMUs and AOCs not found during the PA.
- * Identify releases not discovered during the PA.
- * Provide a more specific description of the environmental setting.
- * Provide more information on release pathways and the potential or releases to each media.
- * Confirm operations, SWMUs, AOCs, and release information obtained during the PA.

The VSI included interviewing appropriate facility staff, inspecting the entire facility to identify all SWMUs and AOCs, photographing all SWMUs, identifying evidence of releases, initially identifying potential sampling locations, and obtaining all information necessary to complete the VSI report. A

Corrective Action Stabilization Questionnaire was completed after the VSI. The questionnaire indicates that stabilization is not recommended for Ferro Corporation's Technical Center.

The VSI was conducted on October 14, 1992. A total of 10 SWMUs and no AOCs were identified during the VSI.

An Introduction to the report is provided in Section 1.0. Section 2.0 provides a description of the facility which includes the facility location, operations, release history, environmental setting and receptors. Sections 3.0 and 4.0 of the report provide a summary of the information available for each SWMU, including observations made during the VSI. References used to prepare this report are included in Section 6.0. Attachment A includes a Corrective Action Stabilization Questionnaire, which was completed after the VSI. A summary of the VSI and the VSI Photographic Log are presented in Attachment B. The VSI Field Notes are also included in Attachment B.

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The VSI was conducted on October 14, 1992. A total of 10 SWMUs and no AOCs were identified during the VSI.

An Introduction to the report is provided in Section 1.0. Section 2.0 provides a description of the facility which includes the facility location, operations, release history, *regulatory history,* environmental setting and receptors. Sections 3.0 and 4.0 of the report provide a summary of the information available for each SWMU, including observations made during the VSI. References used to prepare this report are included in Section 6.0. Attachment A, includes a Corrective Action Stabilization Questionnaire, which was completed after the VSI. A summary of the VSI and the VSI, Photographic Log are presented in Attachment B. The VSI Field Notes are also included in Attachment B.

2.0 FACILITY DESCRIPTION

This section describes the facility location, past and present operations, waste streams, waste management practices, release history, regulatory history, environmental setting, and potential receptors.

2.1 FACILITY LOCATION

Ferro Corporation's Technical Center is located on Pleasant Valley Road in Independence, Ohio (Figure 1). The facility occupies approximately 16 acres. The surrounding land use is primarily industrial and undeveloped, forests (Reference 24).

2.2 FACILITY OPERATIONS

Prior to 1969 the facility was an undeveloped forested area. Ferro purchased the site from R. Copelin, S. Copelin, S. Cohen, and A. Cohen in 1969. The site currently contains two buildings which house all onsite operations. The original Technical Center laboratories and offices were constructed in 1970. A second building was constructed in 1978 to house the Data Center operations. An addition was added to the south side of the original Technical Center building in 1984 (Reference 24).

Ferro Corporation ^{were (Ferro)} is a manufacturer of specialty plastics. Prior to 1980, the majority of the research activities conducted at the facility ~~was~~ on glass technologies and materials. This research is currently a minor portion of the activities conducted at the facility. Currently, the majority of the Technical Center operations consists of conducting product and process research and development ^(R&D) in plastics, polymers and ceramic for long term research. Technical Center activities include the development of additives, the addition of pigments and stabilizers and the compounding of plastics into small quantities of plastic pellets. A typical test run of plastic pellet material will average approximately 500 pounds. Pellets are then used in the laboratory for various analytical tests (References 23 and 25).

In addition to long term ^{manufactured} research, the facility conducts sample analyses of products ~~produce~~ at other Ferro locations to detect defects. Supporting activities include computer programming and statistical analysis (Reference 25).

The facility consists of a number of research laboratories. The specific nature of the research conducted in each laboratory may have changed over the years as Ferro Corporation products and technology changed. However, standard laboratory operating procedures are adhered to within each of the laboratories (Reference 25).

A majority of the laboratories use small quantities ^{and} (10 pounds or less) of a variety of minerals, acids, bases, organic and inorganic chemicals in their R&D and analysis activities. The

The Technical Center has historically been used for the research and development of Ferro-manufactured materials.

THAT'S IT?

77
MIN-OR

(MEK)
Brenda HAVE YOU SEEN THIS BEFORE?

facility also uses larger quantities (100 pounds/month) of several chemicals including alumina, quartz, polypropylene, nylon, acetone, denatured alcohol, cyclohexane, methyl ethyl ketone, fiberglass, borax, zinc oxide, barium carbonate and calcium carbonate (Reference 24).

Chemicals used in research activities are delivered to the facility at the loading dock¹. From the loading dock, the chemicals are stored in the Solvent Room which is an explosion proof room adjacent to the loading dock. As chemicals are needed for various research activities, they are delivered from the Solvent Room to the individual laboratories. The laboratories contain Laboratory Hazardous Satellite Waste Accumulation Areas (SAAs) (SWMUs 1A, 1B, 1C, 1D, 1E, 1F, 1G, 1H, 1I, 1J, 1K, 1L, 1M, 1N, 1O, 1P, 1Q, 1R, 1S, 1T, 1U, 1V, 1W, 1X, 1Y, 1Z, 2A, 2B, 2C, 2D, 2E, 2F, 2G, 2H, 2I, 2J, 2K, 2L, 2M, 2N, 2O, 2P, 2Q, 2R, 2S, 2T, 2U, 2V, 2W, 2X, 2Y, 2Z, 3A, 3B, 3C, 3D, 3E, 3F, 3G, 3H, 3I, 3J, 3K, 3L, 3M, 3N, 3O, 3P, 3Q, 3R, 3S, 3T, 3U, 3V, 3W, 3X, 3Y, 3Z, 4A, 4B, 4C, 4D, 4E, 4F, 4G, 4H, 4I, 4J, 4K, 4L, 4M, 4N, 4O, 4P, 4Q, 4R, 4S, 4T, 4U, 4V, 4W, 4X, 4Y, 4Z, 5A, 5B, 5C, 5D, 5E, 5F, 5G, 5H, 5I, 5J, 5K, 5L, 5M, 5N, 5O, 5P, 5Q, 5R, 5S, 5T, 5U, 5V, 5W, 5X, 5Y, 5Z, 6A, 6B, 6C, 6D, 6E, 6F, 6G, 6H, 6I, 6J, 6K, 6L, 6M, 6N, 6O, 6P, 6Q, 6R, 6S, 6T, 6U, 6V, 6W, 6X, 6Y, 6Z, 7A, 7B, 7C, 7D, 7E, 7F, 7G, 7H, 7I, 7J, 7K, 7L, 7M, 7N, 7O, 7P, 7Q, 7R, 7S, 7T, 7U, 7V, 7W, 7X, 7Y, 7Z, 8A, 8B, 8C, 8D, 8E, 8F, 8G, 8H, 8I, 8J, 8K, 8L, 8M, 8N, 8O, 8P, 8Q, 8R, 8S, 8T, 8U, 8V, 8W, 8X, 8Y, 8Z, 9A, 9B, 9C, 9D, 9E, 9F, 9G, 9H, 9I, 9J, 9K, 9L, 9M, 9N, 9O, 9P, 9Q, 9R, 9S, 9T, 9U, 9V, 9W, 9X, 9Y, 9Z, 10A, 10B, 10C, 10D, 10E, 10F, 10G, 10H, 10I, 10J, 10K, 10L, 10M, 10N, 10O, 10P, 10Q, 10R, 10S, 10T, 10U, 10V, 10W, 10X, 10Y, 10Z, 11A, 11B, 11C, 11D, 11E, 11F, 11G, 11H, 11I, 11J, 11K, 11L, 11M, 11N, 11O, 11P, 11Q, 11R, 11S, 11T, 11U, 11V, 11W, 11X, 11Y, 11Z, 12A, 12B, 12C, 12D, 12E, 12F, 12G, 12H, 12I, 12J, 12K, 12L, 12M, 12N, 12O, 12P, 12Q, 12R, 12S, 12T, 12U, 12V, 12W, 12X, 12Y, 12Z, 13A, 13B, 13C, 13D, 13E, 13F, 13G, 13H, 13I, 13J, 13K, 13L, 13M, 13N, 13O, 13P, 13Q, 13R, 13S, 13T, 13U, 13V, 13W, 13X, 13Y, 13Z, 14A, 14B, 14C, 14D, 14E, 14F, 14G, 14H, 14I, 14J, 14K, 14L, 14M, 14N, 14O, 14P, 14Q, 14R, 14S, 14T, 14U, 14V, 14W, 14X, 14Y, 14Z, 15A, 15B, 15C, 15D, 15E, 15F, 15G, 15H, 15I, 15J, 15K, 15L, 15M, 15N, 15O, 15P, 15Q, 15R, 15S, 15T, 15U, 15V, 15W, 15X, 15Y, 15Z, 16A, 16B, 16C, 16D, 16E, 16F, 16G, 16H, 16I, 16J, 16K, 16L, 16M, 16N, 16O, 16P, 16Q, 16R, 16S, 16T, 16U, 16V, 16W, 16X, 16Y, 16Z, 17A, 17B, 17C, 17D, 17E, 17F, 17G, 17H, 17I, 17J, 17K, 17L, 17M, 17N, 17O, 17P, 17Q, 17R, 17S, 17T, 17U, 17V, 17W, 17X, 17Y, 17Z, 18A, 18B, 18C, 18D, 18E, 18F, 18G, 18H, 18I, 18J, 18K, 18L, 18M, 18N, 18O, 18P, 18Q, 18R, 18S, 18T, 18U, 18V, 18W, 18X, 18Y, 18Z, 19A, 19B, 19C, 19D, 19E, 19F, 19G, 19H, 19I, 19J, 19K, 19L, 19M, 19N, 19O, 19P, 19Q, 19R, 19S, 19T, 19U, 19V, 19W, 19X, 19Y, 19Z, 20A, 20B, 20C, 20D, 20E, 20F, 20G, 20H, 20I, 20J, 20K, 20L, 20M, 20N, 20O, 20P, 20Q, 20R, 20S, 20T, 20U, 20V, 20W, 20X, 20Y, 20Z, 21A, 21B, 21C, 21D, 21E, 21F, 21G, 21H, 21I, 21J, 21K, 21L, 21M, 21N, 21O, 21P, 21Q, 21R, 21S, 21T, 21U, 21V, 21W, 21X, 21Y, 21Z, 22A, 22B, 22C, 22D, 22E, 22F, 22G, 22H, 22I, 22J, 22K, 22L, 22M, 22N, 22O, 22P, 22Q, 22R, 22S, 22T, 22U, 22V, 22W, 22X, 22Y, 22Z, 23A, 23B, 23C, 23D, 23E, 23F, 23G, 23H, 23I, 23J, 23K, 23L, 23M, 23N, 23O, 23P, 23Q, 23R, 23S, 23T, 23U, 23V, 23W, 23X, 23Y, 23Z, 24A, 24B, 24C, 24D, 24E, 24F, 24G, 24H, 24I, 24J, 24K, 24L, 24M, 24N, 24O, 24P, 24Q, 24R, 24S, 24T, 24U, 24V, 24W, 24X, 24Y, 24Z, 25A, 25B, 25C, 25D, 25E, 25F, 25G, 25H, 25I, 25J, 25K, 25L, 25M, 25N, 25O, 25P, 25Q, 25R, 25S, 25T, 25U, 25V, 25W, 25X, 25Y, 25Z, 26A, 26B, 26C, 26D, 26E, 26F, 26G, 26H, 26I, 26J, 26K, 26L, 26M, 26N, 26O, 26P, 26Q, 26R, 26S, 26T, 26U, 26V, 26W, 26X, 26Y, 26Z, 27A, 27B, 27C, 27D, 27E, 27F, 27G, 27H, 27I, 27J, 27K, 27L, 27M, 27N, 27O, 27P, 27Q, 27R, 27S, 27T, 27U, 27V, 27W, 27X, 27Y, 27Z, 28A, 28B, 28C, 28D, 28E, 28F, 28G, 28H, 28I, 28J, 28K, 28L, 28M, 28N, 28O, 28P, 28Q, 28R, 28S, 28T, 28U, 28V, 28W, 28X, 28Y, 28Z, 29A, 29B, 29C, 29D, 29E, 29F, 29G, 29H, 29I, 29J, 29K, 29L, 29M, 29N, 29O, 29P, 29Q, 29R, 29S, 29T, 29U, 29V, 29W, 29X, 29Y, 29Z, 30A, 30B, 30C, 30D, 30E, 30F, 30G, 30H, 30I, 30J, 30K, 30L, 30M, 30N, 30O, 30P, 30Q, 30R, 30S, 30T, 30U, 30V, 30W, 30X, 30Y, 30Z, 31A, 31B, 31C, 31D, 31E, 31F, 31G, 31H, 31I, 31J, 31K, 31L, 31M, 31N, 31O, 31P, 31Q, 31R, 31S, 31T, 31U, 31V, 31W, 31X, 31Y, 31Z, 32A, 32B, 32C, 32D, 32E, 32F, 32G, 32H, 32I, 32J, 32K, 32L, 32M, 32N, 32O, 32P, 32Q, 32R, 32S, 32T, 32U, 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A list of each Solid Waste Management Unit (SWMU) identified at the facility is presented in Table 2.1. The table also indicates the status of each SWMU.

and Clean Harbors, Inc. of Quincy Massachusetts.

These wastes were transported by Chemical Analytics, Inc. of Romulus, Michigan, and/or Chem Freight, Inc. of Ohio. Disposal sites receiving the wastes in Michigan include: Chem Analytics, Inc. of Romulus, Petrochem Processing of Detroit and, Chem-Met Services of Wyandotte. Disposal sites receiving the wastes in Arkansas include: Rineco Chem., Inc. of Benton and Ensco, Inc. of Eldorado. The facility also disposed of waste at Chemtron Corp. of Avon, Ohio (Reference 24).

2.3 RELEASE HISTORY

No releases or spills at the facility were identified within the available file materials or by facility representatives at the time of the VSI. The OEPA Emergency Response Online System Pollution Incidents Report for January 1978 through July 1992 does list several releases as having occurred at various Ferro Corporation facilities. However, facility representatives advised the VSI team that none of these releases occurred at Ferro Corporation's Technical Center (References 1 and 25).

2.4 REGULATORY HISTORY

In September 1980, the facility submitted a Part A application identifying the Former Hazardous Waste Container Storage Area (SWMU 4) (SO1) at the facility. In December 1981, the Ohio Hazardous Waste Facility Board issued permit #02-18-0219 to the facility. The U.S. EPA acknowledged receipt of the facility's Part A application in April, 1982 and indicated that the facility met requirements for operating under interim status as a treatment/storage/disposal (TSD) facility (References 20 and 22).

By November 1983, the facility had removed all hazardous waste from the Former Hazardous Waste Container Storage Area (SWMU 4) to an offsite location for treatment and disposal.

In September 1984, the facility advised the OEPA that it had closed the Former Hazardous Waste Container Storage Area (SWMU 4) and that its current permitted status should be changed from a TSD to a small quantity generator. This report to the OEPA was not in the available file materials (Reference 12).

In an April 1985 letter to the facility, the OEPA acknowledged the facility's status as a generator only with less-than-ninety day storage capacity (Reference 9).

In April 1987, the OEPA advised the facility that it was not subject to financial responsibility rules because the facility had withdrawn its Part A and certified closure of the Former Hazardous Waste Container Storage Area (SWMU 4) in September, 1984.

In April 1988, the U.S. EPA called in the facility's Part B Permit application. In October 1988 the facility advised the U.S. EPA that the OEPA had withdrawn the Part A and changed the

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application

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By November 198

In 1984, Samset Services of Cleveland, Ohio had ~~collected~~ removed all hazardous waste from the ~~the~~ Former Haz Waste Container Storage Area (SWMU 4) to an offsite location for treatment & disposal (Ref, 28).

erence

Table 2(1)

STATUS of SOLID WASTE MANAGEMENT UNITS (SWMUs) AT THE FORD CORPORATION TECHNICAL CENTER

<u>SWMU No.</u>	<u>Name</u>	<u>RCRA*</u>	<u>Status</u>
1.	Laboratory Hazardous Waste Satellite Accumulation Areas (SAAs)	N	Active " "
2.	Solvent Room Accumulation Area (AA)	N	" "
3.	Current Hazardous Waste Container Storage Area	N	
4.	former Hazardous Waste Container Storage Area	Y	Inactive
5.	Plastics Staging Area	N	Active
6.	Dust Collector	N	Active " "
7.	Settling Basin	N	" "
8.	Wet Spray Booth	N	" "
9.	Neutralization Tank	N	" "
10.	Dumpsters	N	" "

Note:

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"RCRA" denotes

(COPY FROM KALCOR TABLE)

Table 2-1

STATUS OF SOLID WASTE MANAGEMENT UNITS (SWMUs)
AND AREAS OF CONCERN (AOCs)
Kalcor Coatings Company

<u>SWMU No.</u>	<u>Name</u>	<u>RCRA</u> *	<u>Status</u>
1	Waste Solvent Accumulation Area (AA)	N	Active
2	Wastewater Storage Tank	N	Active
3	Waste Solvent Storage Tank	N	Active
4	Former Solvent Recovery Still AA	N	Inactive
5	Former Nitrocellulose Container Storage Area	Y	Inactive
6	Former Waste Solvent Container Storage Area	Y	Inactive
7	Dust Collector	N	Active
8	Spray Booth Filter <u>Aas</u>	N	Active
9	Compactor/Dumpster	N	Active
10	Former Solvent Storage Tank	N	Inactive
11	Current and Former Empty Drum Storage Areas	N	Active/ Inactive
12	Laboratory Waste AA	N	Active
13	Former Trash Incinerator	N	Inactive

AOC

A	Water Break Spill Site	N	Inactive
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Note:

- * "RCRA" denotes Solid Waste Management Units which are currently or have in the past operated under RCRA interim status.

EXAMPLE TAKEN
FROM KALCOR

facility's status to a generator with less-than-ninety-day storage capacity (Reference 6).

In December 1988, the U.S. EPA requested ^{for} certification of RCRA closure of the Former Hazardous Waste Container Storage Area (SWMU 4). In March 1989, ^{the} the facility contracted with a professional engineer from WC Midwest Company who certified closure of the unit. The certification was submitted to the U.S. EPA in 1989. U.S. EPA's authorization of ^{the} certification for the unit is on hold, pending the facility submittal of the closure plan ~~used to close the unit~~ (References 3 and 4).

Ferro filed a Notice of Registration for all emissions sources at the facility. Notice of Registrations for the Gas Fired Heating Boiler, the Fume Hoods/Ovens/Spray Booths and Plastics Research Test Equipment were filed in 1976, 1985 and 1986, respectively. According to facility representatives, these units do not require an air permit. The only air pollution control device at the facility is a Torit dust collector utilized in the maintenance shop for sawdust collection (Reference 24).

According to facility representatives, the facility has no NPDES permits (Reference 28).

2.5 ENVIRONMENTAL SETTING

The following sections describe the climate, area soils and surface waters, and area geology and hydrogeology.

2.5.1 Climate

The climate in Independence is continental in nature, with moderate extremes of heat, cold, wetness and dryness. Summers are moderately warm and humid, and winters are cold with approximately seven days of subzero weather. The normal annual temperature in the area is approximately 50°F. The average annual precipitation is 35 inches with the highest precipitation occurring July through August and the lowest in February (Reference 26).

2.5.2 Soils and Surface Water

Surface water run-off at the facility flows north toward Pleasant Valley Road where it is managed in the county stormdrain system. The Cuyahoga River is the closest surface water body ^{near} the facility. The river flows north to south approximately ^{one} miles to the east of the facility. The facility is not within the 100-year floodplain (Reference 24).

The facility is located within the Brecksville silt loam. ^{its} ~~soil~~ ^{this} is moderately deep with 25% to 70% slopes and well drained. Typically, the surface layer of the soil is friable silt loam about two inches thick. The subsoil is about twenty five inches

characterized by the U.S. Department of Agriculture (USDA) Soil Survey as

BRONDA, THIS SHOULD ALREADY EXIST D

thick. The upper part is friable and firm silt loam that is

mottled below about six inches; ~~the~~ the lower part is mottled, firm silty clay loam and shaley silty clay loam. The substratum, to a depth of about thirty inches is mottled, firm shaley silty clay loam. *Under this is thin bedded, soft shale bedrock (Reference 29).

30

same??

same??

Permeability in the Brecksville silt loam is slow, and runoff is very rapid. The root zone is moderately deep to soft shale bedrock and available water capacity is low. Reaction is extremely acid to strongly acid in the subsoil (Reference 29).

2.5.3 Geology and Hydrogeology

Specific information concerning the geology and hydrogeology at the Ferro facility does not exist within the available file materials. General geological information obtained from documents prepared by the State of Ohio Department of Natural Resources (ODNR) Division of Geological Survey is presented in the following paragraphs (References 30 and 31).

The Ferro facility is located within the Glaciated Low Plateau Physiographic Division in northeastern Ohio. The primary physiographic features present in the vicinity of the facility are ground moraines. Surficial deposits in ground moraines near the facility consist of glacially-derived Hiram Till, which are the most extensive and most clay-rich till deposits in northeastern Ohio. The Hiram Till deposits are characteristically thin, with a median thickness ranging from 4 to 6 feet (Reference 30). The exact thickness of these tills near the Ferro facility can not be determined from the available file information, however, the USDA Soil Survey indicates that shale bedrock exists at a depth of approximately 30-inches below the surface (Reference 29). This depth is consistent with the characteristically thin Hiram Till deposits present in the vicinity of the facility (Reference 30).

The bedrock present beneath the surficial till deposits consists of Mississippian-age rocks of the Waverly and Maxville Formation. Information provided in an ODNR Division of Geological Survey map indicates that the Waverly and Maxville Formation rocks consist of shales, sandstones and limestone (Reference 31). The USDA Soil Survey indicates that the uppermost bedrock unit at the facility is composed of shale (Reference 29).

The available file materials contained very little information concerning the hydrogeology in the vicinity of the Ferro facility. It is not likely that unconsolidated glacial deposits in the area produce usable groundwater supplies, since these deposits are composed of the clay-rich Hiram Till. The largest groundwater-producing glacial deposits consist of buried valley deposits in the vicinity of surface water streams (Reference 30). It is likely that water-bearing buried glacial valley deposits exist in the Cuyahoga River Valley, located approximately one mile to the east of the facility.

in northeastern Ohio

There is no information in the available file materials which describes the hydrogeological characteristics of the Waverly and Maxville Formation bedrock units.

2.6 RECEPTORS

The Ferro facility is located in an area of Independence which consists of ~~both industrial and residential facilities which are widely scattered~~. Onsite access is not restricted by a fence or gate of any kind. Therefore, there is potential for onsite exposure to area residents.

The highest concentration of ~~homes~~ ^{located residences} within a close proximity to the facility is approximately one quarter mile to the west and south of the facility. The ~~homes~~ are widely scattered with undeveloped, forested area separating them from the Ferro facility. Prevailing wind direction in the areas is to the south with a mean speed of 10.6 miles per hour (Reference 26).

Ferro and the nearby ~~residential~~ ^{res} and industrial facilities rely on hookups to the Cleveland municipal water system for process and domestic water. The municipal water system ~~gets~~ ^{obtains} its water from Lake Erie. ~~In addition, Ferro relies on a hookup to the North East Ohio Regional Sewer District to manage its sanitary wastewater~~ (References 25 and 27).

discharges sanitary
wastewater generated
at the facility

3.0 DESCRIPTION OF POTENTIAL SOLID WASTE MANAGEMENT UNITS

This section presents detailed descriptions and release assessments for the ten Solid Waste Management Units (SWMUs) identified during the PA/VSI. It includes a description of the units, dates of operation, wastes managed, release controls, release history, and observations. Figure 2 (SWMU Location Map) depicts the locations of all SWMUs ~~at the facility.~~

for each SWMU

located outside the Research Building. A detailed view of SWMU locations inside the Research Building is presented in Figure 3.

Hold for

FIGURE 2

Hold for
Figure 3

SWMU 1

Photographs: 1-1 through 1-13, 1-20

Unit Name: Laboratory Hazardous Satellite Waste Accumulation
Areas (SAAs)

Unit Description: These units are located in the various research laboratories located throughout the facility. See Table 3.1 for specific laboratory locations. The units are designed to accumulate lab waste samples, typically less than one milligram each, near generation points. The units accumulate wastes in glass one-gallon bottles and metal two-gallon containers. From the units, the waste is transferred to the Solvent Room Accumulation Area (SWMU 2) for storage. All of the units are located indoors, generally on tables under fume hoods or on floors (Reference 25).

Date of Start-up: Many of these units have been active since 1970, the start-up date of the facility (Reference 25). *Specific periods of operation for units in the various laboratories are shown in Table 3.1*

Date of Closure: The units were operating at the time of the VSI (Reference 25).

Wastes Managed: The majority of the units manage small quantities of non-halogenated and halogenated solvents used in laboratory analysis. The SAA in the Clean Room (SWMU 1I) manages chlorinated and non-chlorinated wastes (Reference 25).

Release Controls: All of these units are located indoors, generally on tables under hoods (Reference 25).

History of Release: According to facility representatives at the time of the VSI, there have been no releases from this unit (References 24 and 25).

Observations: At the time of the VSI, the containers were stored closed. There were minor stains on the tables or floor areas where the units were located, however, the stains were limited and did not appear to pose a threat to the environment (Reference 25).

3-4
TABLE 3.1

LABORATORY HAZARDOUS SATELLITE WASTE ACCUMULATION AREAS

SWMU Number	SWMU Location	Period of Operation	Photograph #
1A	Inorganic Analytical Lab	1970 to Present	1-1
1B	Microscopy Lab	1970 to Present	1-2
1C	Chromatography Lab (2 units)	1984 to Present	1-3 1-6
1D	Chromatography Lab For GPC* (2 units)	1984 to Present	1-4 1-5
1E	Analytical Lab (2 units)	1970 to Present	1-8 1-9
1F	Nuclear Magnetic Resonance Lab	1984 to Present	1-10
1G	Polymer Modification Lab (2 units)	1984 to Present	1-11 1-12
1H	Film Processing Lab	1985 to Present	1-13
1I	Clean Room	1989 to Present	1-20

* GPC - Gel Permeation Chromatograph.

SWMU 2

Unit Name: Solvent Room Accumulation Area (AA)

Unit Description: The unit is located in an explosion proof room approximately 12 feet by 20 feet, adjacent to the facility loading dock. The unit consists of five steel drums. The unit receives waste from the Laboratory Hazardous Waste SAAs (SWMU 1) and stores it in closed 55-gallon drums for less than ninety days. Prior to 1984, the waste was transferred from the unit to the Former Hazardous Waste Container Storage Area (SWMU 4). Since 1984, the waste has been transferred to the Current Hazardous Waste Container Storage Area (SWMU 3) (References 24, and 25).

Date of Start-up: The unit began operations in 1984 (Reference 24).

Date of Closure: The unit was operating at the time of the VSI (Reference 25).

Wastes Managed: The unit manages solvent wastes, primarily halogenated and non-halogenated wastes, generated from laboratory research and development activities. In addition, it manages waste solvents from laboratory equipment cleaning operations. Raw materials, which include technical grade acetone and denatured alcohol, are also stored in the room (References 24, and 25).

Release Controls: The unit is located indoors, in an explosion proof room. The room vents to the atmosphere. The drums are stored closed. Buckets of absorbent material are located within the room for use in the event of a small spill (References 24 and 25).

History of Release: According to facility representatives at the time of the VSI, there have been no releases from this unit (References 24 and 25).

Observations: At the time of the VSI, the drums were closed with rusted tops. The concrete floor area beneath the drums was stained with minimal cracking (Reference 25).

At the time of the VSI,

the wastes are segregated into different drums.
According to facility representatives, once a 55-gallon drum of a particular waste is full, it is transferred to the Hazardous Waste Container Storage Area (SWMU 3).
Photograph: 1-22
measuring

stem
STET

STET

Full drums of hazardous wastes are generated approximately every 1 to 3 months (Reference 28).

and spill clean-up material in the event of a spill at the facility

and 28).

SWMU 3

Photograph: 1-23

Unit Name: Current Hazardous Waste Container Storage Area

Unit Description: The unit is located outside along the west side of the new addition to the main building. It is situated on concrete within a caged area, approximately 32 feet by 50 feet. The unit consists of one 55-gallon steel drum on a pallet. In addition to the drum storing hazardous wastes, nine empty drums were stored near the unit for future hazardous waste storage activities. The unit receives waste from the Solvent Room Accumulation Area (SWMU 2) and stores it until it is removed from the site by (References 24 and 25).

Date of Start-up: The unit began operations in 1988 (References 24 and 25).

Date of Closure: The unit was operating at the time of the VSI (Reference 25).

Wastes Managed: The unit manages solvent wastes, primarily halogenated and non-halogenated wastes, generated from laboratory research and development activities. In addition, it manages waste solvents from laboratory equipment cleaning operations (References 24 and 25).

Release Controls: The unit is situated on concrete in a caged area. The drum is stored closed. Buckets of absorbent material are located within the area for use in the event of a small spill (References 24 and 25).

History of Release: According to facility representatives at the time of the VSI, there have been no releases from this unit (References 24 and 25).

Observations: At the time of the VSI, the drum was closed. There were minor stains and cracks on the concrete surrounding the unit, however, the stains were limited and did not appear to pose a threat to the environment (Reference 25).

(B)

Chemical Analytics of Romulus, Michigan

... a hazardous waste transporter. Firms used in the past for removal of hazardous waste include Chemical Analytics, Inc of Romulus, Michigan, Clean Harbors of Quincy, Massachusetts and Chem Freight, Inc. of Ohio (Reference ^{27 and} 28). Waste is removed from the unit every three to six months.

Rob -

then say as a small qty generator that they can store haz waste here for 3-6 months. It was already stored @ the Solvent Room for < 90 days. Is the cumulative effect of this too long?

LE

SWMU 4

Photograph: 1-26

Unit Name: Former Hazardous Waste Container Storage Area

Unit Description: The unit was closed by the facility in 1984. It was located outside and south of the original research building structure between two metal sheds. The unit ~~was~~ ^{is} measured approximately 12 feet by 20 feet and paved with asphalt. The unit consisted of steel drums which stored wastes received from the Solvent Room Accumulation Area (SWMU 2). It is currently situated approximately six feet below grade under asphalt in the parking area (References 22, 24 and 25).

The permitted status of the unit has been in question since 1984. The facility was granted status as a TSD facility in January, 1984. The facility removed all hazardous waste and closed the unit in 1984. The contractor who received the waste was ...

Certification of closure for the unit was submitted to the U.S. EPA in August, 1989. U.S. EPA authorization of ^{the} certification is currently on hold, pending ^{the} facility submittal of the closure plan (References 3, 4, 10, 12, 14, 22, and 25).

Date of Start-up: The unit began operations in 1980 (Reference 25). ^{which was not approved by U.S. EPA}

Date of Closure: The unit ceased operating in 1984 (Reference 25).

Wastes Managed: The unit managed solvent wastes, primarily halogenated and non-halogenated wastes, generated from laboratory research and development activities. In addition, it managed waste solvents from laboratory equipment cleaning operations (References 24 and 25).

Release Controls: The unit was situated on asphalt between two metal sheds. The drums were ^{reportedly} stored closed (Reference 25).

History of Release: According to facility representatives at the time of the VSI, there were no releases from this unit (References 24 and 25).

Observations: At the time of the VSI, the unit was paved over, approximately six feet below grade. Therefore, it was impossible to observe the former unit (Reference 25).

^{the existing}
A closure plan for the unit was requested by the VSI team during the VSI. Subsequent to the VSI, the facility representative indicated that no formal closure plan has been located. The facility representative did provide a one-page document which presents a plan for shipping hazardous wastes from the unit (over)

Unit Name: *Sp* Plastics Staging Area

Unit Description: *Sp* The unit is located in the Injection Molding Room. It consists of a PVC drum which receives floor sweepings from the plastic processing rooms and maintenance shop area. From the unit, the ~~waste is disposed of in the facility dumpsters with the office refuse~~ (Reference 25).

Date of Start-up: The unit began operations in 1984 (Reference 25).

Date of Closure: *Sp* The unit was operating at the time of the VSI (Reference 25).

Wastes Managed: *Sp* The unit manages floor sweepings from the plastic processing rooms and maintenance shop area. (Reference 25).

Release Controls: *Sp* The unit is located indoors on concrete (Reference 25).

History of Release: *Sp* According to facility representatives at the time of the VSI, there have been no releases from this unit (References 24 and 25).

Observations: *Sp* At the time of the VSI, the drum was closed with no visible evidence of release (Reference 25).

(Swirl in)
~~was formerly transferred to the Dumps for~~
~~off-site disposal. Currently,~~ wastes managed within
the ~~drum~~ are transported off-site to Ensco in
El Dorado, Arkansas (References 25 and 28).

as hazardous wastes

According to facility representatives, the sweepings contain pellets, pigments and powders, which as a whole, are generally hazardous due to the metal content, particularly lead and cadmium

SWMU 6

Photograph: 1-16, 1-17

Unit Name: Dust Collector

Unit Description: The unit is located in the maintenance shop. It consists of a Torit dust collector which manages wood and metal shavings from the maintenance shop area. The unit has a four-inch-PVC pick-up tube with steel pipes extending to the roof. The rooftop collectors are checked approximately one time per month to see if they are full. From the unit, the waste is disposed of in the facility dumpsters with the office refuse (Reference 25).

Date of Start-up: The unit began operations in 1984 (Reference 25).

Date of Closure: The unit was operating at the time of the VSI (Reference 25).

Wastes Managed: The unit manages wood and metal shavings from the maintenance shop area (Reference 25).

Release Controls: The unit is located indoors (Reference 25).

History of Release: According to facility representatives at the time of the VSI, there have been no releases from this unit (References 24 and 25).

Observations: At the time of the VSI, the integrity of the unit appeared sound and it was relatively clean (Reference 25).

Model 19, with a 1/200 CFM blower, 8-inch ducting, and an exit velocity of 3425 feet per minute.

Cyclone

The unit

Dumpsters (SWMU 10)

Unit Name: Settling Basin

Unit Description: The unit is located in the mixing/furnace room. It consists of a trench approximately eight feet square by twenty inches deep. The unit receives ceramic slurry from an adjacent ball mill grinder. It has a series of screens which filter out the slurry. The waste sludge settles down to the bottom of the unit and the wastewater is discharged to the sanitary sewer system.

From the unit, the waste sludge is removed periodically. The last time the waste sludge was cleaned out was in 1990. Most recently, the facility has contracted with Ameri-waste Environmental Services Co. to remove the sludge. The unit manages approximately 1000 pounds of waste sludge per year (Reference 25).

Chemical Analysis of
Romulus, Michigan

as a hazardous waste.

Date of Start-up: The unit began operations in 1984 (Reference 25).

Date of Closure: The unit was operating at the time of the VSI (Reference 25).

Wastes Managed: The unit manages inorganic sludge waste which may contain metals due to its contact with the metal balls in the mill grinder (primarily borax). In the past, the material contained lead and cadmium (Reference 25).

hazardous dust

generated from the

Release Controls: The unit is located indoors (Reference 25).

History of Release: According to facility representatives at the time of the VSI, there have been no releases from this unit (References 24 and 25).

Observations: At the time of the VSI, the unit was covered with a metal grating. Dried ceramic dust covered the unit and the surrounding surface area of the floor (Reference 25).

SWMU 8

Photograph: 1-15

Unit Name: Wet Spray Booth

Unit Description: The unit is located in the mixing/furnace room. It consists of a paint spray booth which since the early 1980s has been used as a clean out booth. The unit receives ~~the metal grinding balls from the adjacent ball mill grinder.~~ The ceramic slurry is cleaned off ~~of the balls~~ in this unit. The wastewater containing the slurry is discharged into the Settling Basin (SWMU 7) (Reference 25). *these items*

Date of Start-up: The unit was installed in 1970. However, the facility began using it for waste management activities in the early 1980s (Reference 25).

Date of Closure: The unit was operating at the time of the VSI (Reference 25).

Wastes Managed: The unit manages ceramic waste which ~~is~~ may contain metals due to its contact with the metal balls in the mill grinder (primarily borax). In the past the material contained lead and cadmium (Reference 25).

Release Controls: The unit is located indoors (Reference 25).

History of Release: According to facility representatives at the time of the VSI, there have been no releases from this unit (References 24 and 25).

Observations: At the time of the VSI, the unit and the surrounding surface areas were covered with dried ceramic dust (Reference 25).

SWMU 9

Photograph: 1-18

Unit Name: Neutralization Tank

Unit Description: The unit is located in the plastics processing laboratory. It consists of a below grade limestone sump with a metal cover. The unit neutralizes contact and non-contact cooling water from the plastic extruding process. The cooling water is then recirculated throughout the process. (Reference 25).

Date of Start-up: The unit began operations 22 (Reference 25).

Date of Closure: The unit was operating at the time of the VSI (Reference 25).

Wastes Managed: The unit manages contact and non-contact cooling water from the plastic extruding process. Potential constituents within the contact cooling water may include: a variety of minerals, acids, bases, alumina, quartz, polypropylene, nylon, acetone, denatured alcohol, cyclohexane, methyl ethyl ketone, fiberglass, borax, zinc oxide, barium carbonate and calcium carbonate (References 24 and 25).

Release Controls: The unit is located indoors (Reference 25).

History of Release: According to facility representatives at the time of the VSI, there have been no releases from this unit (References 24 and 25).

Observations: At the time of the VSI, the unit was closed and it was impossible to observe the integrity of it (Reference 25).

Non-Contact cooling water, which is used as secondary water to cool the contact cooling water, is discharged to the Sanitary sewer

The sump measures approximately 48 inches by 30 inches by 30 inches deep.

Most Contact

and 28).

in 1984

The unit due to its subsurface location

Managed by this tank

It is assumed that general trash has been handled in the dumpsters since facility operations began.

SWMU 10

Photograph: 1-24-25

Unit Name: ~~Spray Booth Filter Accumulation Area~~ **Dumpsters**

Unit Description: ~~The unit is located~~

Date of Start-up: ~~The unit began operations~~

Date of Closure: ~~The units are currently operating.~~

Wastes Managed:

Release Controls: Both dumpsters are situated on concrete pads (Reference 25).

History of Release: According to facility representatives at the time of the VSI, there have been no releases from this unit (References 24 and 25).

Observations: Both dumpsters appeared to be in good condition at the time of the VSI. No signs of staining were present in the vicinity of the units.

60 TO (A)

The Syd³ dumpster at the loading dock receives general plant trash and paper filters generated within a Paint Spray Booth. ~~In the past, the unit also received the pellets, pigments and powders from the Plastic Staging Area (SWMD), which have been determined to be hazardous due to the presence of metals.~~ The Syd³ dumpster at the Data Center manages general ~~plant~~ trash (cardboard, paper, etc.) generated at the Technical Center. (Reference 25).

(A)

(Photograph 1-24)

Unit Description: This unit consists of two dumpsters located outside the facility buildings. One dumpster is located adjacent to the loading dock at the Research Building and the second is located outside the Data Center. The unit located at the loading dock

~~receives~~ receives general plant trash and paper filters generated within ~~the~~ a Spray Paint Booth at the facility. ~~the~~

~~The past, the unit also received the pellets, pigments and powders from the Plastics Staging Area (SWMS).~~

~~The materials at the Plastics Staging Area are currently managed and disposed of as hazardous wastes.~~

~~The~~ [↑] dumpster outside the Data Center is used to manage general plant trash (Reference 25).

The dumpster at the loading dock measures 8 cubic yards (8 yd^3) and is situated on an outdoor concrete pad. Runoff from the area of the dumpster is to the parking lot ~~west~~ ^{south} of the Research Building.

The dumpster outside the Data Center measures 6 yd^3 and is situated on a concrete pad. Runoff from the area of the 6 yd^3 dumpster flows toward a grassy area to the south of the Data Center (Reference 25).

4.0 DESCRIPTION OF POTENTIAL AREAS OF CONCERN

Few No potential Areas of Concern (AOCs) were identified at the NIBCO, Inc. facility located in Elkhart, ~~Indiana~~ during the VSI or through review of the available file materials.

BOLD ALL SWMU
#S AND NAMES!

5.0 CONCLUSIONS ^{And Recommendations}

SWMUs 1A - 1I Laboratory Hazardous Satellite Waste Accumulation Areas

Conclusions: The past and present potential for releases to groundwater, surface water, soil and air from these units is low since the units are located indoors on concrete and/or tile floors and the waste is stored in closed containers. Sled

Recommendations: No further action is recommended for these units.

SWMU 2 Solvent Room Accumulation Area

Conclusions: The past and present potential for releases to groundwater, surface water, soil and air from this unit is low since it is located indoors on concrete and the waste is stored in closed drums.

Recommendations: No further action is recommended for this unit.

SWMU 3 Current Hazardous Waste Container Storage Area

Conclusions: The past and present potential for releases to groundwater, surface water, soil and air from this unit is low since it is located on concrete and the waste is stored in closed drums.

Recommendations: No further action is recommended for this unit.

SWMU 4 Former Hazardous Waste Container Storage Area

Conclusions: The past ^{and present} potential for releases to groundwater, surface water, soil and air from this unit cannot be determined because the unit is now six feet below grade and the closure plan used is not currently available for review.

Recommendations: Provide a copy of the closure plan for U.S. EPA review. Sampling may be warranted for this unit based on a review of the closure plan.

SWMU 5 Plastics Staging Area

Conclusions: The past and present potential for releases to groundwater, surface water, soil and air from this unit is low since it is located indoors on concrete and the waste is stored in closed drums. Sled

Recommendations: No further action is recommended for this unit.

SWMU 6 Dust Collector

Conclusions: The past and present potential for releases to

→ The potential for releases to air is low since the dust is captured within a fully-enclosed piece of equipment.
and
groundwater, surface water, soil and air from this unit is low because the unit does not manage hazardous waste or hazardous constituents. *is located within indoors and above concrete.*

Recommendations: No further action is recommended for this unit.

SWMU 7

Settling Basin

low since wastewater from the unit is discharged to the sanitary sewer, and is subsequently treated at a POTW.
Conclusions: The past and present potential for releases to surface water from this unit is moderate since in the past it *that* managed ceramic sludge (which contained lead and cadmium) and was cleaned from the unit infrequently. As a result, the unit may have discharged contaminated wastewater to the sewer system. The potential for release to soil and groundwater from the unit is unknown because the integrity of the unit could not be confirmed due to its subsurface location. The potential for release to air is low due to the non-volatile nature of the wastes managed.

hazardous
Recommendations: Because the unit managed wastes containing heavy metals in the past, the integrity of the unit should be determined. If the integrity of the unit is found to be in question, sampling of the soils beneath the unit is recommended. In addition, the contents of the unit should be sampled to determine if contamination remains inside of the unit.

SWMU 8

Wet Spray Booth

Conclusions: The past and present potential for releases to groundwater, surface water, soil and air from this unit is low because the unit is located indoors on concrete, *and it releases to the Settling Basin (SWMU 7)*

Recommendations: No further action is recommended for this unit.

SWMU 9

Neutralization Tank

SEE (B), NEXT PAGE
Conclusions: ~~The past and present potential for releases to groundwater, surface water, soil and air from this unit is low because the unit is located indoors and manages non-volatile wastewater from contact and non-contact plastic cooling operations.~~

Recommendations: Because the unit manages contact cooling water from the plastic extruding process, it is recommended that the integrity of the unit be determined. If the integrity of the unit is found to be in question, sampling of the soils beneath the unit is recommended.

SWMU 10

Dumpsters
~~Spray Booth Filter Accumulation Area~~

Conclusions: The past and present potential for releases to groundwater, surface water, soil and air from this unit is

low due to the enclosed nature of the dumpsters, and their
Recommendations: *locations above concrete.*

→ No further action is recommended for this unit.



The past and present potential for releases to soil and groundwater from this unit is unknown, since the integrity of the unit could not be determined during the VSI, and the unit manages contact cooling water. The past and present potential for releases to air from this unit is low due to the non-volatile wastewater managed in the unit. The past and present potential for releases to surface water is low since the unit discharges to the sanitary sewer system and is subsequently treated by a POTW.

Recommendation

TABLE 5.1

SWMUs and SUGGESTED FURTHER ACTIONS

SWMU	Operational Dates	Evidence of Releases	Suggested Further Actions
1A-1I	1970 to Present	No	None
2	1984 to Present	No	None
3	1984 ⁸⁰ to Present	No	None
4	1970 ⁸⁰ to 1984	No	Provide a copy of the closure plan for U.S. EPA review. Sampling may be warranted for this unit based on a review of the closure plan.
5	1984 to Present	No	None
6	1984 to Present	No	None
7	1984 to Present	No	Integrity testing of the unit. Sampling to determine whether hazardous constituents remain in the unit.
8	Early 1980s to Present	No	None
9	1984 ⁸⁰ to Present	No	Integrity testing of the unit. is suggested.
10	1970s to Present	No	None

1970s to Present

6.0 REFERENCES

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3. Letter to Lisa Pierard, Chief Ohio Section, U.S. EPA, from Eldrige White, Manager of Corporate Research, Ferro Corporation, Re: Certifying closure of the facility by a registered engineer, March 17, 1989.
4. Letter to Eldridge White, Ferro Corporation, from Lisa Pierard, Chief Ohio Section, U.S. EPA, Re: Response to October 17, 1988 letter - Part A withdrawal, December 15, 1988.
5. Letter to William Munro, Acting Associate division Director, Office of RCRA, U.S. EPA, from Eldrige White, Ferro Corporation, Re: Response to April 22, 1988 letter - Part B Call-In, October 17, 1988.
6. Letter to David Harrison, Manager Administration, Ferro Corporation Technical Center, from William Munro, Acting Associate Division Director, Office of RCRA, U.S. EPA, Re: Part B Call-In, April 22, 1988.
7. Waste Minimization Addendum to Generator Biennial or Annual Hazardous Waste Report for 1985, February 26, 1986.
8. Air Pollution Control Appendix A., Process Data, August 2, 1985.
9. Letter to Dr. Roy Harrington, Vice President, Corporate Director Research, Ferro Corporation, from Thomas Crepeau, Manager, Division of Solid and Hazardous Waste Management (DSHWM), OEPA, Re: Expiration of Ohio Hazardous Waste Installation & Operation Permit (OHWIOP) and change of status to generator only with less than 90 day storage, April 5, 1985.
10. Letter to David Harrison, Ferro Corporation, from Rodney Beals, DSHWM, OEPA, Re: Facility inspection conducted December 3, 1984 & requesting a closure certification for the drum storage area, December 14, 1984.
11. RCRA Interim Status Inspection Form, December 3, 1984.
12. Letter to DSHWM, OEPA, from Roy Harrington, Vice

President Corporate Director Research, Ferro Corporation, Re: Response to August 14, 1984 letter - OHWIOP expiration - advising that storage area closed, September 24, 1984.

13. Letter to Ferro Corporation from Steven White, Chief DSHWM, OEPA, Re: OHWIOP expiration, August 14, 1984.
14. Letter to David Harrison, Ferro Corporation, from Rodney Beals, Environmental Scientist, Division of Hazardous Materials Management (DHMM), OEPA, Re: Inspection conducted January 27, 1984, facility found in general compliance and facility request to withdraw Part A application, January 31, 1984.
15. RCRA Interim Status Inspection Form, January 27, 1984.
16. Letter to David Harrison, Ferro Corporation, from Rodney Beals, Environmental Scientist, DHMM, OEPA, Re: Contingency Plan deficiency response and facility return to general compliance, August 16, 1983.
17. Letter to David Harrison, Ferro Corporation, from Rodney Beals, Environmental Scientist, DHMM, OEPA, Re: Inspection conducted March 17, 1983 and deficiencies identified, April 8, 1983.
18. Letter to David Harrison, Ferro Corporation, from Peggy Vince, Executive Director, Hazardous Waste Facility Approval Board (HWFAB), Re: An administrative error found in the facilities Hazardous Waste Facility Installation and Operation Permit (HWFIOIP) 02-18-0219, September 17, 1982.
19. Letter to David Harrison, Ferro Corporation, from Robert Buda, Environmental Scientist, DHMM, OEPA, Re: Inspection conducted July 26, 1982, August 11, 1982. *from*
20. Letter to David Harrison, Ferro Corporation, from Peggy Vince, Executive Director, Hazardous Waste Facility Approval Board (HWFAB), Re: HWFIOIP permit, December 8, 1981.
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27. Conversation with Ron Reed of Cleveland Municipal Water Department. November 4, 1992.

28. Conversations with Paul Angus of ferro Corporation. November 3 - 12, 1992.

29. Soil Survey of Cuyahoga County, Ohio, U.S. Department of Agriculture, December, 1980.

30. Glacial Geology of Northeastern Ohio, Bulletin 68, State of Ohio Department of Natural Resources, Division of Geological Survey, Reprinted 1987.

31. Glacial Map of Ohio, Ohio Department of Natural Resources, Division of Water and Division of Geological Survey, Miscellaneous Geologic Investigations Map I-316, 1961.

ATTACHMENT B

VISUAL SITE INSPECTION SUMMARY
FERRO CORPORATION TECHNICAL CENTER
INDEPENDENCE, OHIO

Date: October 14, 1992
Facility
Representatives: Eldrige White, Ferro Corporation
Paul Angus, Ferro Corporation
David Harrison, Ferro Corporation

Inspection Team: Carrie Ericson, A.T. Kearney
Shereen Shermak, A.T. Kearney
Mark Sattleberg, U.S. EPA

Weather
Conditions: Overcast, approximately 60°F.

Summary of
Activities: The visual site inspection (VSI)
for the Ferro Corporation Technical
Center began at 11:45 a.m. A
meeting with facility
representatives was conducted by
the VSI team between approximately
11:55 a.m. and 1:10 p.m. The
purpose of the inspection was
discussed from a regulatory
history. Subsequently, questions
asked of the facility in the VSI
Notification Letter were discussed,
including site history, past and
present facility operations and
waste management practices, and
solid waste management units
(SWMUs).

Standpoint.

At approximately 1:10 p.m., a tour
of the facility was conducted to
identify and inspect the SWMUs and
areas of concern (AOCs) previously
found during the preliminary
assessment of the available file
materials, and discussed at the
opening meeting. Units inside the
building were viewed first. The
potential for release of hazardous
constituents to the environment was
evaluated during the inspection.
Photographs were taken by the
inspection team with the facility's
permission.

An exit meeting was held between approximately 2:30 p.m. and 3:00 p.m. to discuss the facility representative's concerns regarding the visit, and to clarify the PA/VSI process.

PHOTOLOG

All photographs taken inside the various portions of the facility building and laboratories have been identified with the direction of INDOORS. The locations of the various SWMUs ~~is~~ ^{are} listed in Table 3.1.

<u>ORIENT.</u>	<u>#</u>	<u>DIRECTION</u>	<u>DESCRIPTION</u>
H	1-1	Indoors	View of the Inorganic Laboratory Hazardous Waste Accumulation Area (SWMU 1A) consisting of one ^{a single} one-gallon glass jug on a table within the fume hood.
H	1-2	Indoors	View of the Microscopy Laboratory Hazardous Waste Accumulation Area (SWMU 1B) consisting of one " " one-gallon plastic jug on a table within the fume hood.
H	1-3	Indoors	View of the Chromatography Laboratory Hazardous Waste Accumulation Area (SWMU 1C) consisting of one " " one-gallon glass jug on a table within the fume hood.
H	1-4	Indoors	View of the Chromatography Laboratory Hazardous Waste Accumulation Area (SWMU 1D) consisting of one " " one-gallon glass jug placed in a white bucket located in a cabinet. This jug collects the waste liquid solvent after it has flowed through the gel permeation chromatograph.
H	1-5	Indoors	View of the Chromatography Laboratory Hazardous Waste Accumulation Area (SWMU 1D) consisting of one " " one-gallon glass jug located on a table top. This jug collects the waste liquid solvent after it has flowed through the gel permeation chromatograph.
H	1-6	Indoors	View of the Chromatography Laboratory Hazardous Waste Accumulation Area (SWMU 1C) consisting of one " " one-gallon glass jug located on a table top within a fume hood.
H	1-7	Indoors	View of the spray booth located in the Analytical Laboratory Press Room. Booth used for painting plastics.
H	1-8	Indoors	View of the Analytical Laboratory Hazardous Waste Accumulation Area (SWMU 1E) consisting of two one-gallon glass jugs and one ^{a single} one-gallon plastic jug located on a table top within a fume hood.
H	1-9	Indoors	View of the Analytical Laboratory Hazardous Waste Accumulation Area (SWMU 1E) consisting of one two-gallon container located on the floor.
H	1-10	Indoors	View of the Nuclear Magnetic Resonance Laboratory Hazardous Waste Accumulation Area (SWMU 1F) consisting of one one-gallon glass jug located on a table top within a fume hood.

a single

Satellite

H 1-11 Indoors View of the Polymer Modification Laboratory Hazardous Waste Accumulation Area (SWMU 1G) consisting of two ~~two~~-gallon containers located on the floor.

H 1-12 Indoors View of the Polymer Modification Laboratory Hazardous Waste Accumulation Area (SWMU 1G) consisting of one two-gallon container and two one-gallon glass jugs located on the floor.

H 1-13 Indoors View of the Thick Film Processing Laboratory Hazardous Waste Accumulation Area (SWMU 1H) consisting of one two-gallon container located on the floor positioned on a plastic tray.

H 1-14 Indoors View of the Settling Basin (SWMU 7) covered with a grate and floor mats. Dried ceramic slurry material covered the grating and surrounding floor area.

H 1-15 Indoors View of the Wet Spray Booth (SWMU 8) containing dried ceramic slurry material on the grating and sides of the unit.

H 1-16 Indoors View of the Dust Collector (SWMU 6) located on a table with no visible dust in the area.

H 1-17 Indoors View of the Dust Collector (SWMU 6) hose nozzle.

H 1-18 Indoors View of the *Neutralization Tank* ~~Limestone Sump~~ (SWMU 9) closed and covered with dried, plastic dust material.

H 1-19 Indoors View of the Plastics Staging Area (SWMU 5) consisting of large plastic drums. *Note the drum marked "hazardous waste."*

H 1-20 Indoors View of the Clean Room Laboratory Hazardous Waste Accumulation Area (SWMU 1I) consisting of two ~~two~~-gallon containers located on small drums on the floor.

H 1-21 North View of the sump for stormwater collection at the loading dock area. The grate was damp and covered with a metal grating.

H 1-22 Indoors View of the Solvent Room Accumulation Area (SWMU 2) containing four 55-gallon steel drums. The drums were closed with rusted tops.

H 1-23 South View of the Current Hazardous Waste Container Storage Area (SWMU 3) containing one 55-gallon steel drum. The drum was closed with a rusted top.

H 1-24 North View of the eight-cubic-yard dumpster *(SWMU 10)* ~~for general office refuse~~ located at the loading dock.

H 1-25 East View of the six-cubic-yard dumpster for

Research Building

general office refuse located at the Data Center loading dock.

H 1-26 West View of ^{the} location of ^{the} Former Hazardous Waste Container Storage Area (SWMU 4). The exact location of the former unit is currently six feet below grade.

H 1-27 Indoors View of the pump to remove collected stormwater from the loading dock sump. The collected stormwater is discharged to the stormwater sewer system.

used

603'
PROPERTY BOUNDARY

VALLEY ROAD

E. PLEASA

1217' PROPERTY BOUNDARY

PARKING AREA

RESEARCH BUILDING

(see Figure 3 for a Detailed View of the Building Interior)

80'
142'
DATA PROCESSING BUILDING

Site of Former Shed 14x20'
Site of Former Shed 12x12'

SWMU 10

SWMU 4

SWMU 2

SWMU 6

SWMU 3

SWMU 5

SWMU 9

SWMU 11

WOODS

WOODS

PROPERTY BOUNDARY

PROPERTY BOUNDARY 1180'

LEGEND

SWMU 20 - LOCATION OF SWMU

1" = 100'

N

LABORATORY SWMU LOCATION MAP

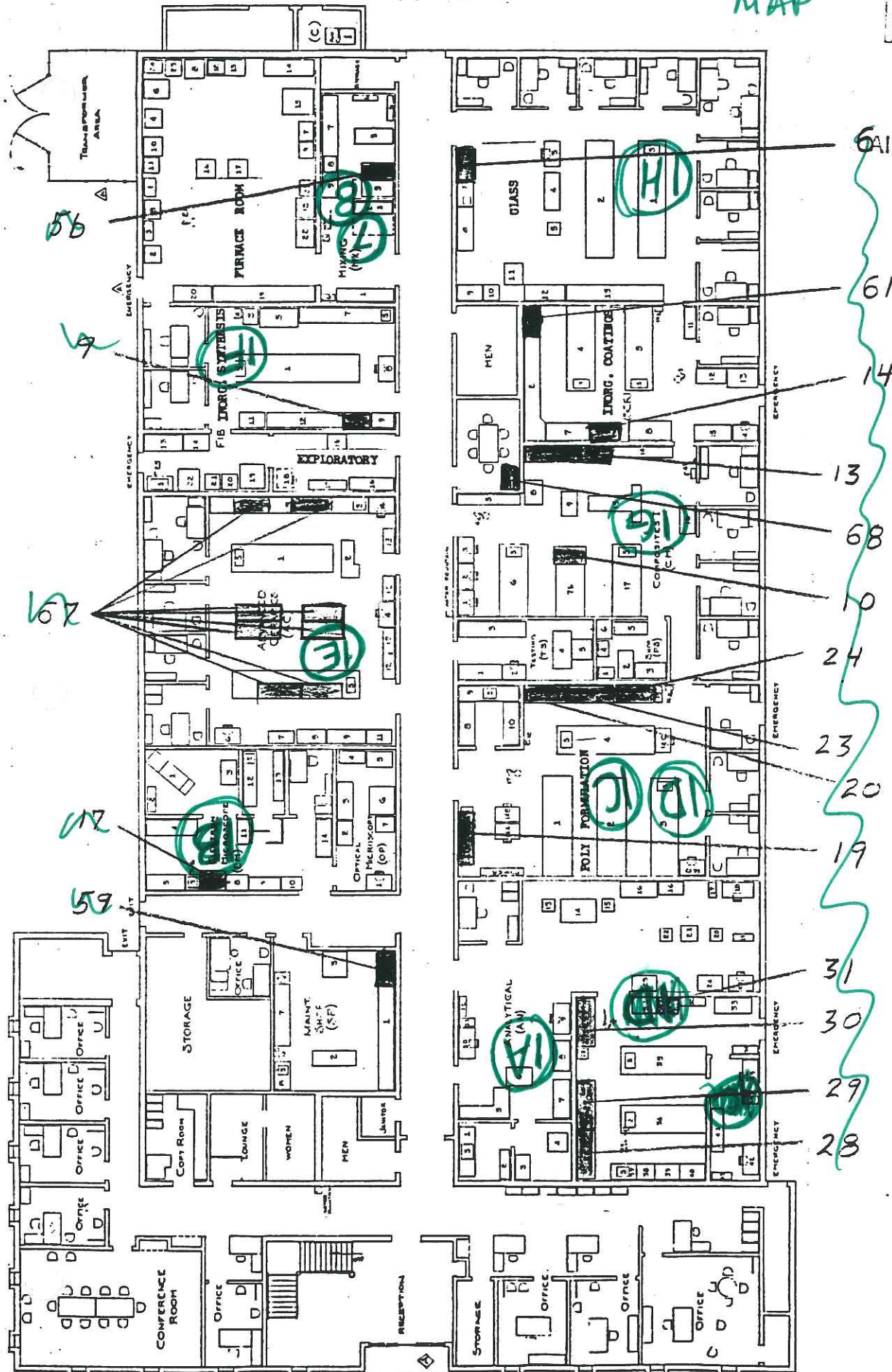
FIGURE 3-LABORATORY SWMU LOCATION MAP

RECEIVED

AUG 02 1985

DIVISION OF
AIR POLLUTION CONTROL

13-18-27-3756 Pool



REFERENCE: 8

5/1/85

CERTIFICATION REGARDING POTENTIAL RELEASES FROM
SOLID WASTE MANAGEMENT UNITS

Q

FACILITY NAME: Garfield Alloys Inc
 EPA I.D. NUMBER: OH0004201992
 LOCATION CITY: Garfield Hts
 STATE: Ohio

1. Are there any of the following solid waste management units (existing or closed) at your facility? NOTE - DO NOT INCLUDE HAZARDOUS WASTE UNITS CURRENTLY SHOWN IN YOUR PART A APPLICATION

	YES	NO
• Landfill	<u> </u>	<u>X</u>
• Surface Impoundment	<u>X</u>	<u> </u>
• Land Farm	<u> </u>	<u>X</u>
• Waste Pile	<u> </u>	<u>X</u>
• Incinerator	<u> </u>	<u>X</u>
• Storage Tank (Above Ground)	<u> </u>	<u>X</u>
• Storage Tank (Underground)	<u> </u>	<u>X</u>
• Container Storage Area	<u> </u>	<u>X</u>
• Injection Wells	<u> </u>	<u>X</u>
• Wastewater Treatment Units	<u> </u>	<u>X</u>
• Transfer Stations	<u> </u>	<u> </u>
• Waste Recycling Operations	<u> </u>	<u>X</u>
• Waste Treatment, Detoxification	<u> </u>	<u>X</u>
• Other <u> </u>	<u> </u>	<u> </u>

After Mg Sludge breaks
downs (gets soft) Mg is
Retrieved by Hand

2. If there are "Yes" answers to any of the items in Number 1 above, please provide a description of the wastes that were stored, treated or disposed of in each unit. In particular, please focus on whether or not the wastes would be considered as hazardous wastes or hazardous constituents under RCRA. Also include any available data on quantities or volume of wastes disposed of and the dates of disposal. Please also provide a description of each unit and include capacity, dimensions and location at facility. Provide a site plan if available.

The "wastes" are the skimmings and Sludge
from our Magnesium Smelting operation. This
"waste" has been determined to be now Hazardous
by outside labs.

The chemical makeup being Mg, MgCl, MgO

NOTE: Hazardous wastes are those identified in 40 CFR 261. Hazardous constituents are those listed in Appendix VIII of 40 CFR Part 261.

3. For the units noted in Number 1 above and also those hazardous waste units in your Part A application, please describe for each unit any data available on any prior or current releases of hazardous wastes or constituents to the environment that may have occurred in the past or may still be occurring.

Please provide the following information

- a. Date of release
- b. Type of waste released
- c. Quantity or volume of waste released
- d. Describe nature of release (i.e., spill, overflow, ruptured pipe or tank, etc.)

A. Before Hazardous waste laws went into effect "Magnesium flux" (which makes up 90% of our Sludge) had Barium chloride in it. Since the law took effect the magnesium Industry has Taken the $BaCl_2$ out of the flux.

4. In regard to the prior or continuing releases described in Number 3 above, please provide (for each unit) any analytical data that may be available which would describe the nature and extent of environmental contamination that exists as a result of such releases. Please focus on concentrations of hazardous wastes or constituents present in contaminated soil or groundwater.

Small amounts of Barium Chloride were present in our Sludge Prior to the Hazardous waste law This Sludge was dumped into our impoundment. Private tests and Test by the Ohio EPA show no Barium contamination present in the water or ground on the sight or off it.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the submittal is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. (42 U.S.C. 6902 et seq. and 40 CFR 270.11(d))

Chuck Slovich, Vice President

Typed Name and Title

Signature

2/5/86
Date

A.T. Kearney, Inc.
222 West Adams Street
Chicago, Illinois 60606
312 648 0111
Facsimile 312 223 6200

Management
Consultants

RECEIVED
MAR 4 - 1993

OFFICE OF RCRA
Waste Management Division
U.S. EPA, REGION V

ATKEARNEY

March 2, 1993

Mr. Bernie Orenstein
Regional Project Officer
U.S. Environmental Protection Agency
Region V, HRM7J
77 W. Jackson Boulevard
Chicago, IL 60604

Reference: EPA Contract No. 68-W9-0040; Work Assignment No.
R05-25-05; Ferro Corporation Technical Center;
Independence, Ohio; EPA I.D. No. OHD000817205;
Preliminary Assessment/Visual Site Inspection;
Report Deliverable Revision

Dear Mr. Orenstein:

Enclosed please find a revised page 2-7 for the above-referenced Preliminary Assessment/Visual Site Inspection (PA/VSI) report. This revision was requested by Mark Sattelberg, the EPA Work Assignment Manager. Please insert the revised page into the deliverable.

Should you have any questions or require additional information, please contact me at (312) 223-6237.

Sincerely,



Robert Young
Technical Director

Enclosure

cc: M. Sattelberg, EPA Region V C. Ericson
B. Jordan P. Davol
L. Poe T. Lavender-Gates (w/o encl.)

2.5.1 Climate

The climate in Independence is continental in nature, with moderate extremes of heat, cold, wetness and dryness. Summers are moderately warm and humid, and winters are cold with approximately seven days of subzero weather. The normal annual temperature in the area is approximately 50°F. The average annual precipitation is 35 inches with the highest precipitation occurring July through August and the lowest in February (Reference 26).

2.5.2 Soils and Surface Water

Surface water run-off at the facility flows north toward Pleasant Valley Road where it is managed in the county storm drain system. The Cuyahoga River is the closest surface water body to the facility. The river flows south to north, approximately one mile to the east of the facility. The facility is not within the 100-year floodplain (References 24 and 28).

The facility is located within the Brecksville silt loam. This soil is characterized by the U.S. Department of Agriculture (USDA) Soil Survey as moderately deep and well drained. Typically, the surface layer of the soil is friable silt loam about two inches thick. The subsoil is about 25 inches thick. The upper part is friable and firm silt loam that is mottled below about six inches; the lower part is mottled, firm silty clay loam and shaley silty clay loam. The substratum, to a depth of about 30 inches is mottled, firm shaley silty clay loam. Under this is thinly bedded, soft shale bedrock (Reference 29).

Permeability in the Brecksville silt loam is slow, and runoff is very rapid. The root zone is moderately deep to soft shale bedrock, and available water capacity is low. Reaction is extremely acid to strongly acid in the subsoil (Reference 29).

2.5.3 Geology and Hydrogeology

Specific information concerning the geology and hydrogeology at the Ferro facility does not exist within the available file materials. General geological information obtained from documents prepared by the State of Ohio Department of Natural Resources (ODNR) Division of Geological Survey is presented in the following paragraphs (References 30 and 31).

The Ferro facility is located within the Glaciated Low Plateau Physiographic Division in northeastern Ohio. The primary physiographic features present in the vicinity of the facility are ground moraines. Surficial deposits in ground moraines near the facility consist of glacially-derived Hiram Till, which are the most extensive and most clay-rich till deposits in

DEC 28 1992

HRP-8J

Mr. Paul Angus
Ferro Corporation
P.O. Box 6550
4150 East 56th Street
Cleveland, Ohio 44101

RE: Visual Site Inspection Report
Ferro Corp./ Technical Center
OHD 000 817 205

Dear Mr. Angus:

As of our telephone conversation, enclosed please find a copy of the Preliminary Review/ Visual Site Inspection (PR/VSI) report for Ferro Corporation's Technical Center. As was discussed, the Executive Summary and the Conclusions and Recommendations sections have been omitted. The final RCRA Facility Assessment (RFA) report will be written in the future, but will incorporate the findings of the PR/VSI. The RFA is usually a summary of the PR/VSI with final recommendations for further actions, if needed. If you have any questions or comments on the PR/VSI report, please contact me at, (312) 353-9184.

Sincerely,



R. Mark Sattelberg
Environmental Scientist

A.T. Kearney, Inc.
222 West Adams Street
Chicago, Illinois 60606
312 648 0111
Facsimile 312 223 6200

Management
Consultants

November 19, 1992

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NOV 20 1992
OFFICE OF RCRA
Waste Management Division
U.S. EPA REGION V

ATKEARNEY

Mr. Bernie Orenstein
Regional Project Officer
U.S. Environmental Protection Agency
Region V, HRM-76
77 West Jackson Boulevard
Chicago, IL 60604

Reference: EPA Contract No. 68-W9-0040; Work Assignment
No. R05-25-05; Ferro Corporation Technical
Center; Independence, Ohio; EPA I.D. No.
OHD000817205; Preliminary Assessment/Visual
Site Inspection Report; Deliverable

Dear Mr. Orenstein:

Enclosed please find the Preliminary Assessment/Visual Site
Inspection (PA/VSI) report for the above-referenced facility.
The report summarizes the findings of the PA and VSI at the
Ferro Corporation Technical Center.

Ferro Corporation's Technical Center serves as a research and
development (R&D) center for Ferro Corporation. The
Technical Center conducts both short and long-range research
programs for Ferro operations. The R&D facility conducts
tests and analysis of polymeric, organic, inorganic, and
composite materials. Supporting activities include computer
programming and statistical analysis. Ferro began operations
in 1969 at this facility.

The facility consists of approximately sixteen acres of land
located in Independence, Ohio. Ten SWMUs were identified
during the PA/VSI. Nine of the SWMUs are currently active
and operating at the facility. The Former Hazardous Waste
Container Storage Area (SWMU 4) was closed by the facility in
1984. However, the status of the unit has been in question
with the OEPA and the U.S. EPA since 1984. Certification of
closure of the unit was not submitted to the U.S. EPA until
August, 1989. U.S. EPA authorization of certification is on
hold, pending the facility submittal and Agency approval of
the closure plan used to close the unit.

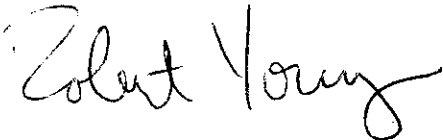
Mr. Bernie Orenstein
November 19, 1992
Page Two

Integrity testing is suggested for two units identified at the facility, the Settling Basin (SWMU 7) and the Neutralization Tank (SWMU 9). Both these units are located underground and the integrities of the units could not be assessed during the VSI. The Settling Basin manages solids which have been determined to be hazardous wastes and the Neutralization Tank manages contact cooling water.

Further information needs were addressed in phone calls to the Ferro Corporation representatives after the completion of the VSI.

Should you have any questions or require additional information, please feel free to contact me or Carrie Ericson, the A.T. Kearney WAM, who can be reached at (312) 223-6234.

Sincerely,

A handwritten signature in cursive script that reads "Robert Young".

Robert Young
Technical Director

Enclosure

cc: M. Sattelberg, EPA Region V
B. Jordan
L. Poe
C. Ericson
P. Davol
T. Lavender-Gates (w/o enc)

A.T. Kearney, Inc.
222 South Riverside Plaza
Chicago, Illinois 60606
312 648 0111
Facsimile 312-648-1939-
223 6200

Management
Consultants

28

ATKEARNEY

To	Paul Angus	Date	November 3, 1992
Company	Ferro Corporation	Fax Number	216-641-1771
From	Carrie Ericson	Number of Pages (Including this Page)	2
Telephone Number	312-223-6234	Charge Number	
		(group)	(job reference #)

Message

In writing our report from our visual site inspection to Ferro Corporation's Technical Center, we ran into a few questions which were not addressed fully at the time of our October 14, 1992 visit. Please review and respond to the following questions. We thank you in advance for your assistance in this matter.

- #1 N/A
- ✓ #2 When do you expect to receive the closure plan for the Former Container Storage unit from the engineers?
- ✓ #3 How many miles is the facility from the Cuyahoga River?
- ✓ #4 If a spill is cleaned up using the absorbent material contained in the pails, where is the contaminated spill clean-up material disposed of?
- ✓ #5 What is the name and location of the firm which collects your hazardous waste?
- ✓ #6 Approximately how long is hazardous waste stored in the Solvent Room? Approximately how long is hazardous waste stored out back in the container storage unit?
- ✓ #7 Who collected the hazardous waste from the container storage unit in 1984?
- ✓ #8 Where are the floor sweepings which are stored in the PVC drum in the plastics staging area disposed of?

- #9 What does the Wet Spray Booth adjacent to the settling basin clean?
- #10 Where are the spray booth filters disposed of?
- #11 What are the dimensions of the limestone sump?
- #12 When was the limestone sump installed?
- #13 Is the cooling water recirculated throughout the process or discharged (or maybe both)? If it is discharged, where is it discharged to?

Again, thank you for addressing these questions.
Regards,

Carrie Ericson
A.T. Kearney

PRELIMINARY ASSESSMENT/VISUAL SITE INSPECTION

of the

**Ferro Corporation/Technical Center
Independence, Ohio
EPA I.D. No. OHD000817205**

Prepared for:

**Mr. Bernie Orenstein
U.S. Environmental Protection Agency
Region V
77 W. Jackson Boulevard
Chicago, Illinois 60604**

Prepared by:

**A.T. Kearney, Inc.
222 West Adams Street
Chicago, Illinois 60606**

**EPA Contract No. 68-W9-0040
Work Assignment No. R05-25-05**

November 1992

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ATTACHMENTS

- A CORRECTIVE ACTION STABILIZATION QUESTIONNAIRE
- B VSI SUMMARY, LOGBOOKS AND PHOTOGRAPHIC LOG

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EXECUTIVE SUMMARY

A Preliminary Assessment/Visual Site Inspection (PA/VSI) was conducted at the Ferro Corporation's Technical Center, Independence, Ohio facility (EPA I.D. No. OHD000817205). The purpose of the PA/VSI was to assess the potential for releases from Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) at the facility. This PA/VSI Report summarizes the findings of the review of the available file materials and the Visual Site Inspection (VSI), which was conducted on October 14, 1992. In addition, a completed Corrective Action Stabilization Questionnaire is included as Attachment A to assist in the prioritization of RCRA facilities.

Ferro Corporation's Technical Center serves as a research and development center for Ferro Corporation. The Technical Center conducts both short and long-range research programs for Ferro operations. The R&D facility conducts tests and analysis of polymeric, organic, inorganic, and composite materials. Supporting activities include computer programming and statistical analysis. Ferro began operations in 1969 at this facility.

Ten SWMUs were identified during the PA/VSI. These are listed as follows:

<u>Solid Waste Management Unit</u>	<u>Name</u>
1	Laboratory Hazardous Waste Satellite Accumulation Areas (SAAs) (1A-1I)
2	Solvent Room Accumulation Area (AA)
3	Current Hazardous Waste Container Storage Area
4	Former Hazardous Waste Container Storage Area
5	Plastics Staging Area
6	Dust Collector
7	Settling Basin
8	Wet Spray Booth
9	Neutralization Tank
10	Dumpsters

Of the ten SWMUs listed above, nine of the SWMUs are currently active and operating at the facility. The Former Hazardous Waste Container Storage Area (SWMU 4) was closed by the facility in 1984. However, the status of the unit has been in question with the OEPA and the U.S. EPA since 1984. Certification of closure of the unit was not submitted to the U.S. EPA until August, 1989. U.S. EPA authorization of certification is on hold, pending the facility submittal and Agency approval of the closure plan used to close the unit.

Threat of release to air, surface water, groundwater and soils surrounding the facility from the majority of the SWMUs is low. SWMUs 1, 2 and 5 - 9 are located indoors within appropriate containment areas. The Current Hazardous Waste Container Storage Area (SWMU 3) is located outdoors above a concrete pad. It was impossible to assess the release potential for the Former Hazardous Waste Container Storage Area (SWMU 4) because it is located approximately six feet below grade in the parking area, which has been regraded since the unit's operational years. It is suggested that the facility submit a copy of the closure plan used to close this unit to the U.S. EPA for review. After the closure plan has been reviewed, it may be possible to determine the past potential for releases from this unit.

Integrity testing is suggested for two units identified at the facility, the Settling Basin (SWMU 7) and the Neutralization Tank (SWMU 9). Because both these units are located underground, the integrities of the units could not be assessed during the VSI. Additionally, the Settling Basin manages solids which have been determined to be hazardous and the Neutralization Tank manages contact cooling water.

1.0 INTRODUCTION

Preliminary Assessment/Visual Site Inspections (PA/VSI) are being performed at several RCRA facilities in Region V as part of the United States Environmental Protection Agency's (EPA's) Environmental Priorities Initiative. Through the initiative, EPA Region V is prioritizing RCRA facilities for corrective action. Through the PA/VSI process, sufficient information is obtained to characterize a facility's actual or potential releases to the environment from Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs).

This report presents the results of the PA/VSI for the Ferro Corporation's Technical Center in Independence, Cuyahoga County, Ohio. The facility EPA I.D. No. is OHD000817205. The information used in preparing this report was compiled from State of Ohio Environmental Protection Agency (OEPA) files, EPA Region V files, and information gathered during the VSI.

The purposes of the PA are to:

- Identify SWMUs and AOCs at the facility.
- Obtain information on the operational history of the facility.
- Obtain information on releases from any units at the facility.
- Identify data gaps and other informational needs to be filled during the VSI.

The purposes of the VSI are to:

- Identify SWMUs and AOCs not found during the PA.
- Identify releases not discovered during the PA.
- Provide a more specific description of the environmental setting.
- Provide more information on release pathways and the potential or releases to each media.
- Confirm operations, SWMUs, AOCs, and release information obtained during the PA.

The VSI included interviewing appropriate facility staff, inspecting the entire facility to identify all SWMUs and AOCs, photographing all SWMUs, identifying evidence of releases,

initially identifying potential sampling locations, and obtaining all information necessary to complete the VSI report. A Corrective Action Stabilization Questionnaire was completed after the VSI. The questionnaire indicates that stabilization is not recommended for Ferro Corporation's Technical Center.

The VSI was conducted on October 14, 1992. A total of 10 SWMUs and no AOCs were identified during the VSI.

An Introduction to the report is provided in Section 1.0. Section 2.0 provides a description of the facility which includes the facility location, operations, release history, regulatory history, environmental setting and receptors. Sections 3.0 and 4.0 of the report provide a summary of the information available for each SWMU, including observations made during the VSI. References used to prepare this report are included in Section 6.0. Attachment A includes a Corrective Action Stabilization Questionnaire, which was completed after the VSI. A summary of the VSI and the VSI Photographic Log are presented in Attachment B. The VSI Field Notes are also included in Attachment B.

2.0 FACILITY DESCRIPTION

This section describes the facility location, past and present operations, waste streams, waste management practices, release history, regulatory history, environmental setting, and potential receptors.

2.1 FACILITY LOCATION

Ferro Corporation's Technical Center is located on Pleasant Valley Road in Independence, Ohio (Figure 1). The facility occupies approximately 16 acres. The surrounding land use is primarily industrial and undeveloped forests (Reference 24).

2.2 FACILITY OPERATIONS

Prior to 1969 the facility was an undeveloped forested area. Ferro purchased the site from R. Copelin, S. Copelin, S. Cohen, and A. Cohen in 1969. The site currently contains two buildings which house all on-site operations. The original Technical Center laboratories and offices were constructed in 1970. A second building was constructed in 1978 to house the Data Center operations. An addition was added to the south side of the original Technical Center building in 1984 (Reference 24).

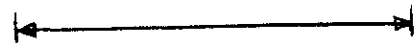
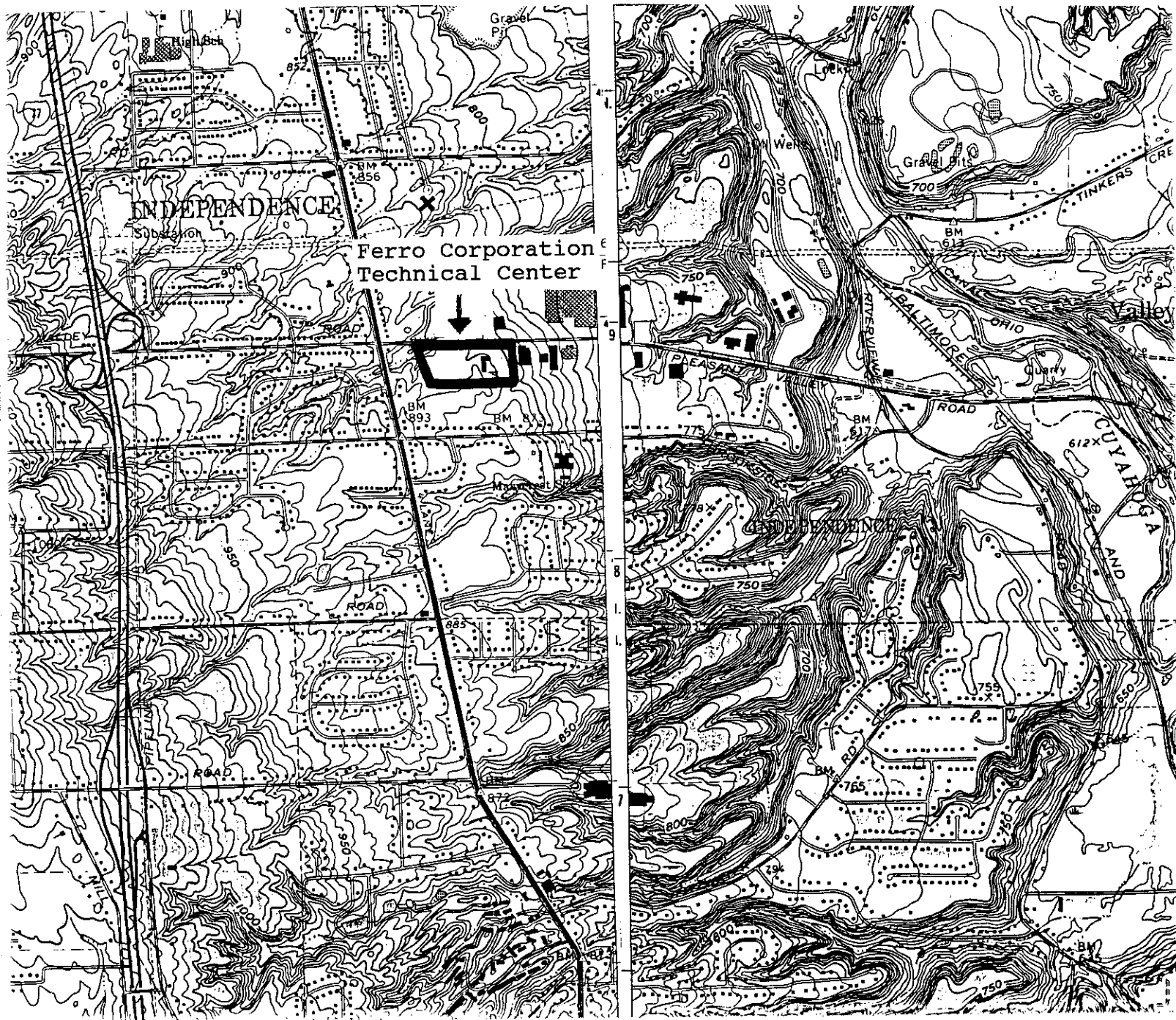
Ferro Corporation (Ferro) is a manufacturer of specialty plastics. The Technical Center has historically been used for the research and development of Ferro-manufactured materials. Prior to 1980, the majority of the research activities conducted at the facility were on glass technologies and materials. This research is currently a minor portion of the activities conducted at the facility. Currently, the majority of the Technical Center operations consist of conducting product and process research and development (R&D) in plastics, polymers and ceramic for long term research. Technical Center activities include the development of additives, the addition of pigments and stabilizers and the compounding of plastics into small quantities of plastic pellets. A typical test run of plastic pellet material will average approximately 500 pounds. Pellets are then used in the laboratory for various analytical tests (References 23 and 25).

In addition to long term research, the facility conducts sample analyses of products manufactured at other Ferro locations to detect defects. Supporting activities include computer programming and statistical analysis (Reference 25).

The facility consists of a number of research laboratories. The specific nature of the research conducted in each laboratory may have changed over the years as Ferro Corporation products and

Figure 1

Facility Location Map



ONE MILE

technology changed. However, standard laboratory operating procedures are adhered to within each of the laboratories (Reference 25).

A majority of the laboratories use small quantities (10 pounds or less) of a variety of minerals, acids, bases, and organic and inorganic chemicals in their R&D and analysis activities. The facility also uses larger quantities (100 pounds/month) of several chemicals including alumina, quartz, polypropylene, nylon, acetone, denatured alcohol, cyclohexane, methyl ethyl ketone (MEK), fiberglass, borax, zinc oxide, barium carbonate and calcium carbonate (Reference 24).

Chemicals used in research activities are delivered to the facility at the loading dock¹. From the loading dock, the chemicals are stored in the Solvent Room which is an explosion proof room adjacent to the loading dock. As chemicals are needed for various research activities, they are delivered from the Solvent Room to the individual laboratories. The laboratories contain Laboratory Hazardous Waste Satellite Accumulation Areas (SAAs) (SWMUs 1A - 1I) to manage the chemicals after they have been used (Reference 24).

Hazardous waste is transferred from Laboratory Hazardous Waste SAAs (SWMUs 1A - 1I) to 55-gallon drums in the Solvent Room AA (SWMU 2). From the Solvent Room AA, full drums are transferred to the Current Hazardous Waste Container Storage Area (SWMU 3) where they are held until they are collected by a contractor for shipment and disposal off-site. Prior to 1984, the wastes from the Laboratory Hazardous Waste SAAs were transferred to the Former Hazardous Waste Container Storage Area (SWMU 4) (References 24 and 25).

From 1989 through 1992, the facility generated and shipped off-site for disposal the following quantities and types of wastes:

WASTES GENERATED AT THE FERRO TECHNICAL CENTER (gallons)

WASTE TYPE	1989	1990	1991	1992*
Non-halogenated Solvents	530	165	740	350
Halogenated Solvents	300	55	110	1100
Waste Oil	300	0	220	50

¹ The loading area contains a trench approximately two feet deep to manage stormwater runoff (photograph 1-21). Because the trench does not manage hazardous constituents, it is not identified as a SWMU in this analysis.

WASTE TYPE	1989	1990	1991	1992*
**Hazardous Solid Waste	0	1200 lbs.	500 lbs.	0
Waste Lab Chemicals	0	50	0	16

* Quantities listed through September, 1992.

**Consisting primarily of waste lab chemicals disposed of during 'house-cleaning' operations.

These wastes were transported off-site by Chemical Analytics, Inc. of Romulus, Michigan, Chem Freight, Inc. of Ohio, and Clean Harbors, Inc. of Quincy, Massachusetts. Disposal sites receiving the wastes in Michigan include: Chem Analytics, Inc. of Romulus, Petrochem Processing of Detroit and, Chem-Met Services of Wyandot. Disposal sites receiving the wastes in Arkansas include: Rineco Chem., Inc. of Benton and Ensco, Inc. of Eldorado. The facility also disposed of waste at Chemtron Corp. of Avon, Ohio (References 24 and 28).

A list of each Solid Waste Management Unit (SWMU) identified at the facility is presented in Table 2-1. The table also indicates the status of each SWMU.

2.3 RELEASE HISTORY

No releases or spills at the facility were identified within the available file materials or by facility representatives at the time of the VSI. The OEPA Emergency Response Online System Pollution Incidents Report for January 1978 through July 1992 does list several releases as having occurred at various Ferro Corporation facilities. However, facility representatives advised the VSI team that none of these releases occurred at Ferro Corporation's Technical Center (References 1 and 25).

2.4 REGULATORY HISTORY

In September 1980, the facility submitted a RCRA Part A Permit Application identifying the Former Hazardous Waste Container Storage Area (SWMU 4) (SO1) at the facility. In December 1981, the Ohio Hazardous Waste Facility Board issued permit #02-18-0219 to the facility. The U.S. EPA acknowledged receipt of the facility's Part A Application in April, 1982 and indicated that the facility met the requirements for operating under interim status as a treatment/storage/disposal (TSD) facility (References 20 and 22).

TABLE 2-1

STATUS OF SOLID WASTE MANAGEMENT UNITS (SWMUs)
FERRO CORPORATION TECHNICAL CENTER

<u>SWMU No.</u>	<u>Name</u>	<u>RCRA*</u>	<u>Status</u>
1	Laboratory Hazardous Waste Satellite Accumulation Areas (SAAs)	N	Active
2	Solvent Room Accumulation Area (AA)	N	Active
3	Current Hazardous Waste Container Storage Area	N	Active
4	Former Hazardous Waste Container Storage Area	Y	Inactive
5	Plastics Staging Area	N	Active
6	Dust Collector	N	Active
7	Settling Basin	N	Active
8	Wet Spray Booth	N	Active
9	Neutralization Tank	N	Active
10	Dumpsters	N	Active

Note:

- * "RCRA" denotes Solid Waste Management Units which are currently or have in the past operated under RCRA interim status.

In 1984, Samsel Services of Cleveland, Ohio had removed all hazardous waste from the Former Hazardous Waste Container Storage Area (SWMU 4) to an off-site location for treatment and disposal (Reference 28).

In September 1984, the facility advised the OEPA that it had closed the Former Hazardous Waste Container Storage Area (SWMU 4) and indicated that its current permitted status should be changed from a TSD to a small quantity generator. A closure report was not in the available file materials (Reference 12).

In an April 1985 letter to the facility, the OEPA acknowledged the facility's status as a generator only with less-than-90 day storage capacity (Reference 9).

In April 1987, the OEPA advised the facility that it was not subject to financial responsibility rules because the facility had withdrawn its Part A Permit Application and certified closure of the Former Hazardous Waste Container Storage Area (SWMU 4) in September, 1984.

In April 1988, the U.S. EPA called in the facility's RCRA Part B Permit application. In October 1988 the facility advised the U.S. EPA that the OEPA had withdrawn the Part A application and changed the facility's status to a generator with less-than-ninety-day storage capacity (Reference 6).

In December 1988, the U.S. EPA requested the certification of RCRA closure for the Former Hazardous Waste Container Storage Area (SWMU 4). In March 1989, the facility contracted with a professional engineer from WC Midwest Company who certified closure of the unit. The certification was submitted to the U.S. EPA in 1989. U.S. EPA's authorization of the certification is on hold, pending a facility submittal of the closure plan used to close the unit (References 3 and 4).

Ferro filed a Notice of Registration for all emissions sources at the facility. Notice of Registrations for the Gas Fired Heating Boiler, the Fume Hoods/Ovens/Spray Booths and Plastics Research Test Equipment were filed in 1976, 1985 and 1986, respectively. According to facility representatives, these units do not require an air permit. The only air pollution control device at the facility is a Torit dust collector utilized in the maintenance shop for sawdust collection (Reference 24).

According to facility representatives, the facility has no NPDES permits (Reference 28).

2.5 ENVIRONMENTAL SETTING

The following sections describe the climate, area soils and surface water, and area geology and hydrogeology.

2.5.1 Climate

The climate in Independence is continental in nature, with moderate extremes of heat, cold, wetness and dryness. Summers are moderately warm and humid, and winters are cold with approximately seven days of subzero weather. The normal annual temperature in the area is approximately 50°F. The average annual precipitation is 35 inches with the highest precipitation occurring July through August and the lowest in February (Reference 26).

2.5.2 Soils and Surface Water

Surface water run-off at the facility flows north toward Pleasant Valley Road where it is managed in the county storm drain system. The Cuyahoga River is the closest surface water body to the facility. The river flows north to south, approximately one mile to the east of the facility. The facility is not within the 100-year floodplain (References 24 and 28).

The facility is located within the Brecksville silt loam. This soil is characterized by the U.S. Department of Agriculture (USDA) Soil Survey as moderately deep and well drained. Typically, the surface layer of the soil is friable silt loam about two inches thick. The subsoil is about 25 inches thick. The upper part is friable and firm silt loam that is mottled below about six inches; the lower part is mottled, firm silty clay loam and shaley silty clay loam. The substratum, to a depth of about 30 inches is mottled, firm shaley silty clay loam. Under this is thinly bedded, soft shale bedrock (Reference 29).

Permeability in the Brecksville silt loam is slow, and runoff is very rapid. The root zone is moderately deep to soft shale bedrock, and available water capacity is low. Reaction is extremely acid to strongly acid in the subsoil (Reference 29).

2.5.3 Geology and Hydrogeology

Specific information concerning the geology and hydrogeology at the Ferro facility does not exist within the available file materials. General geological information obtained from documents prepared by the State of Ohio Department of Natural Resources (ODNR) Division of Geological Survey is presented in the following paragraphs (References 30 and 31).

The Ferro facility is located within the Glaciated Low Plateau Physiographic Division in northeastern Ohio. The primary physiographic features present in the vicinity of the facility are ground moraines. Surficial deposits in ground moraines near the facility consist of glacially-derived Hiram Till, which are the most extensive and most clay-rich till deposits in

northeastern Ohio. The Hiram Till deposits are characteristically thin, with a median thickness ranging from 4 to 6 feet (Reference 30). The exact thickness of these tills near the Ferro facility can not be determined from the available file information, however, the USDA Soil Survey indicates that shale bedrock exists at a depth of approximately 30-inches below the surface (Reference 29). This depth is consistent with the characteristically thin Hiram Till deposits present in the vicinity of the facility (Reference 30).

The bedrock present beneath the surficial till deposits consists of Mississippian-age rocks of the Waverly and Maxville Formation. Information provided in an ODNR Division of Geological Survey map indicates that the Waverly and Maxville Formation rocks consist of shales, sandstones and limestone (Reference 31). The USDA Soil Survey indicates that the uppermost bedrock unit at the facility is composed of shale (Reference 29).

The available file materials contain very little information concerning the hydrogeology in the vicinity of the Ferro facility. It is not likely that unconsolidated glacial deposits in the area produce usable groundwater supplies, since these deposits are composed of the clay-rich Hiram Tills. The largest groundwater-producing glacial deposits in northeastern Ohio consist of buried valley deposits in the vicinity of surface water streams (Reference 30). It is likely that water-bearing buried glacial valley deposits exist in the Cuyahoga River Valley, located approximately one mile to the east of the facility.

There is no information in the available file materials which describes the hydrogeological characteristics of the Waverly and Maxville Formation bedrock units.

2.6 RECEPTORS

The Ferro facility is located in an area of Independence which consists of widely scattered industrial facilities and residential dwellings. On-site access is not restricted by a fence or gate of any kind. Therefore, there is potential for on-site exposure to area residents.

The highest concentration of residences within a close proximity to the facility is located approximately one quarter mile to the west and south of the facility. The residences are widely scattered with undeveloped, forested areas separating them from the Ferro facility. Prevailing wind direction in the areas is to the south with a mean speed of 10.6 miles per hour (Reference 26).

Ferro and the nearby residences and industrial facilities rely on hookups to the Cleveland municipal water system for process and domestic water. The municipal water system obtains its water from Lake Erie. Ferro discharges sanitary wastewaters generated at the facility to the North East Ohio Regional Sewer District (References 25 and 27).

3.0 DESCRIPTION OF POTENTIAL SOLID WASTE MANAGEMENT UNITS

This section presents detailed descriptions and release assessments for the ten Solid Waste Management Units (SWMUs) identified during the PA/VSI. It includes a description of the units, dates of operation, wastes managed, release controls, release history, and observations for each SWMU. Figure 2 (SWMU Location Map) depicts the locations of several SWMUs. A detailed view of SWMU locations inside the Research Building is presented in Figure 3.

SWMU 1

Photographs: 1-1 through 1-13, 1-20

Unit Name: Laboratory Hazardous Waste Satellite Accumulation Areas (SAAs)

Unit Description: These units are located in the various research laboratories located throughout the facility. See Table 3.1 for specific laboratory locations. The units are designed to accumulate lab waste samples, typically less than one milligram each, near generation points. The units accumulate wastes in glass one-gallon bottles and metal two-gallon containers. From the units, the waste is transferred to the Solvent Room Accumulation Area (SWMU 2) for storage. All of the units are located indoors, generally on tables under fume hoods or on floors (Reference 25).

Date of Start-up: Many of these units have been active since 1970, the start-up date of the facility. Specific periods of operation for units in the various laboratories are shown in Table 3-1 (Reference 25).

Date of Closure: The units were operating at the time of the VSI (Reference 25).

Wastes Managed: The majority of the units manage small quantities of non-halogenated and halogenated solvents used in laboratory analysis. The SAA in the Clean Room (SWMU 1I) manages chlorinated and non-chlorinated wastes (Reference 25).

Release Controls: All of these units are located indoors, generally on tables under hoods (Reference 25).

History of Release: According to facility representatives at the time of the VSI, there have been no releases from this unit (References 24 and 25).

Observations: At the time of the VSI, the containers were stored closed. There were minor stains on the tables or floor areas where the units were located, however, the stains were limited and did not appear to pose a threat to the environment (Reference 25).

TABLE 3-1

LABORATORY HAZARDOUS WASTE SATELLITE ACCUMULATION AREAS

SWMU Number	SWMU Location	Period of Operation	Photograph #
1A	Inorganic Analytical Lab	1970 to Present	1-1
1B	Microscopy Lab	1970 to Present	1-2
1C	Chromatography Lab (2 units)	1984 to Present	1-3 1-6
1D	Chromatography Lab For GPC* (2 units)	1984 to Present	1-4 1-5
1E	Analytical Lab (2 units)	1970 to Present	1-8 1-9
1F	Nuclear Magnetic Resonance Lab	1984 to Present	1-10
1G	Polymer Modification Lab (2 units)	1984 to Present	1-11 1-12
1H	Film Processing Lab	1985 to Present	1-13
1I	Clean Room	1989 to Present	1-20

* GPC - Gel Permeation Chromatograph.

Unit Name: Solvent Room Accumulation Area (AA)

Unit Description: The unit is located in an explosion proof room measuring approximately 12 feet by 20 feet, adjacent to the facility loading dock. At the time of the VSI, the unit consisted of five steel drums. The unit receives wastes from the Laboratory Hazardous Waste SAAs (SWMU 1) and stores them in closed 55-gallon drums for less than ninety days. The wastes are segregated into different drums. According to facility representatives, once a 55-gallon drum of a particular waste is full, it is transferred to the Current Hazardous Waste Container Storage Area (SWMU 3) (References 24, 25 and 28). Full drums of hazardous wastes are generated approximately every one to three months (Reference 28).

Date of Start-up: The unit began operations in 1984 (Reference 24).

Date of Closure: The unit was operating at the time of the VSI (Reference 25).

Wastes Managed: The unit manages solvent wastes, primarily halogenated and non-halogenated wastes, generated from laboratory research and development activities. In addition, it manages waste solvents from laboratory equipment cleaning operations and spill clean-up material in the event of a spill at the facility. Raw materials, which include technical grade acetone and denatured alcohol, are also stored in the room (References 24, 25 and 28).

Release Controls: The unit is located indoors, in an explosion proof room. The room vents to the atmosphere. The drums are stored closed. Buckets of absorbent material are located within the room for use in the event of a small spill (References 24 and 25).

History of Release: According to facility representatives at the time of the VSI, there have been no releases from this unit (References 24 and 25).

Observations: At the time of the VSI, the drums were closed with rusted tops. The concrete floor area beneath the drums was stained with minimal cracking (Reference 25).

Unit Name: Current Hazardous Waste Container Storage Area

Unit Description: The unit is located outside along the west side of the new addition to the main building. It is situated on concrete within a caged area measuring approximately 32 feet by 50 feet. The unit consists of one 55-gallon steel drum on a pallet. In addition to the drum storing hazardous wastes, nine empty drums were stored near the unit for future hazardous waste storage activities. The unit receives waste from the Solvent Room Accumulation Area (SWMU 2) and stores it until it is removed from the site by a hazardous waste transporter. Firms used in the past for removal of hazardous waste include Chemical Analytics, Inc. of Romulus, Michigan, Clean Harbors of Quincy, Massachusetts and Chem Freight, Inc. of Ohio. Waste is removed from the unit every three to six months (References 27 and 28).

Date of Start-up: The unit began operations in 1988 (References 24 and 25).

Date of Closure: The unit was operating at the time of the VSI (Reference 25).

Wastes Managed: The unit manages solvent wastes, primarily halogenated and non-halogenated wastes, generated from laboratory research and development activities. In addition, it manages waste solvents from laboratory equipment cleaning operations (References 24 and 25).

Release Controls: The unit is situated on concrete in a caged area. The drum is stored closed. Buckets of absorbent material are located within the area for use in the event of a small spill (References 24 and 25).

History of Release: According to facility representatives at the time of the VSI, there have been no releases from this unit (References 24 and 25).

Observations: At the time of the VSI, the drum was closed. There were minor stains and cracks on the concrete surrounding the unit, however, the stains were limited and did not appear to pose a threat to the environment (Reference 25).

Unit Name: Former Hazardous Waste Container Storage Area

Unit Description: This unit was closed by the facility in 1984. It was located outside and south of the original research building structure between two metal sheds. The unit measured approximately 12 feet by 20 feet and was paved with asphalt. The unit consisted of steel drums which stored wastes received from the Laboratory Hazardous Waste SAAs (SWMU 1). It is currently situated approximately six feet below grade, under asphalt in the parking area (References 22, 24 and 25).

The permitted status of the unit has been in question since 1984. The facility was granted status as a TSD facility in January, 1984. The facility removed all hazardous waste and closed the unit in 1984. The contractor who received the waste was Samsel Services of Cleveland, Ohio (Reference 28).

Certification of closure for the unit was submitted to the U.S. EPA in August, 1989. U.S. EPA authorization of the certification is currently on hold, pending a facility submittal of the closure plan, which was not approved by U.S. EPA (References 3, 4, 10, 12, 14, 22, and 25).

A closure plan for the unit was requested by the VSI team during the VSI. Subsequent to the VSI, the facility representative indicated that no formal closure plan has been located. The facility representative did provide a one-page document which presents a plan for shipping hazardous wastes from the unit off-site. However, no cleaning or decontamination procedures are included in the letter (Reference 28).

Date of Start-up: The unit began operations in 1980 (Reference 25).

Date of Closure: The unit ceased operating in 1984 (Reference 25).

Wastes Managed: The unit managed solvent wastes, primarily halogenated and non-halogenated wastes, generated from laboratory research and development activities. In addition, it managed waste solvents from laboratory equipment cleaning operations (References 24 and 25).

Release Controls: The unit was situated on asphalt between two metal sheds. The drums were reportedly stored closed (Reference 25).

History of Release: According to facility representatives at the time of the VSI, there were no releases from this unit (References 24 and 25).

Observations: At the time of the VSI, the unit was paved over, approximately six feet below the existing grade. Therefore, it was impossible to observe the former unit (Reference 25).

Unit Name: Plastics Staging Area

Unit Description: The unit is located in the Injection Molding Room. It consists of a PVC drum which receives floor sweepings from the plastic processing rooms and maintenance shop area. From the unit, the wastes managed within the drum are transported off-site as hazardous wastes to Ensco in El Dorado, Arkansas (References 25 and 28).

Date of Start-up: The unit began operations in 1984 (Reference 25).

Date of Closure: The unit was operating at the time of the VSI (Reference 25).

Wastes Managed: The unit manages floor sweepings from the plastic processing rooms and maintenance shop area. According to facility representatives, the sweepings contain pellets, pigments and powders, which as a whole, are generally hazardous due to the metal content, particularly lead and cadmium (Reference 25).

Release Controls: The unit is located indoors on concrete (Reference 25).

History of Release: According to facility representatives at the time of the VSI, there have been no releases from this unit (References 24 and 25).

Observations: At the time of the VSI, the drum was closed with no visible evidence of release (Reference 25).

Unit Name: Dust Collector

Unit Description: The unit is located in the maintenance shop. It consists of a Torit Cyclone Dust Collector, Model 19, with a 1,200 CFM blower, 8-inch ducting, and an exit velocity of 3425 feet per minute. The unit manages wood and metal shavings from the maintenance shop area. The unit has a four-inch-PVC pick-up tube with steel pipes extending to the roof. The rooftop collectors are checked approximately one time per month to see if they are full. From the unit, the waste is disposed of in the facility Dumpsters (SWMU 10) with the office refuse (Reference 25).

Date of Start-up: The unit began operations in 1984 (Reference 25).

Date of Closure: The unit was operating at the time of the VSI (Reference 25).

Wastes Managed: The unit manages wood and metal shavings from the maintenance shop area (Reference 25).

Release Controls: The unit is located indoors (Reference 25).

History of Release: According to facility representatives at the time of the VSI, there have been no releases from this unit (References 24 and 25).

Observations: At the time of the VSI, the integrity of the unit appeared sound and it was relatively clean (Reference 25).

Unit Name: Settling Basin

Unit Description: The unit is located in the mixing/furnace room. It consists of a trench approximately 8 feet square by 20 inches deep. The unit receives ceramic slurry from an adjacent ball mill grinder. It has a series of screens which filter out the slurry. The waste sludge settles down to the bottom of the unit and the wastewater is discharged to the sanitary sewer system.

The waste sludge is removed from the unit periodically. The last time the waste sludge was cleaned out was in 1990. Most recently, the facility has contracted with Chemical Analytics of Romulus, Michigan to remove the sludge as a hazardous waste. The unit manages approximately 1,000 pounds of waste sludge per year (Reference 25).

Date of Start-up: The unit began operations in 1984 (Reference 25).

Date of Closure: The unit was operating at the time of the VSI (Reference 25).

Wastes Managed: The unit manages inorganic sludge waste which is hazardous due to metals generated from the metal balls in the mill grinder. In the past, the material contained lead and cadmium (Reference 25).

Release Controls: The unit is located indoors (Reference 25).

History of Release: According to facility representatives at the time of the VSI, there have been no releases from this unit (References 24 and 25).

Observations: At the time of the VSI, the unit was covered with a metal grating. Dried ceramic dust covered the unit and the surrounding surface area of the floor (Reference 25).

Unit Name: Wet Spray Booth

Unit Description: The unit is located in the mixing/furnace room. It consists of a paint spray booth, which since the early 1980s has been used as a clean out booth. The unit receives sieves, screens, pans and ball mills used in the mixing room. The ceramic slurry is cleaned off these items in this unit. The wastewater containing the slurry is discharged into the Settling Basin (SWMU 7) (Reference 25).

Date of Start-up: The unit was installed in 1970. However, the facility began using it for waste management activities in the early 1980s (Reference 25).

Date of Closure: The unit was operating at the time of the VSI (Reference 25).

Wastes Managed: The unit manages ceramic waste which may contain metals due to its contact with the metal balls in the mill grinder (primarily borax). In the past the material contained lead and cadmium (Reference 25).

Release Controls: The unit is located indoors (Reference 25).

History of Release: According to facility representatives at the time of the VSI, there have been no releases from this unit (References 24 and 25).

Observations: At the time of the VSI, the unit and the surrounding surface areas were covered with dried ceramic dust (Reference 25).

Unit Name: Neutralization Tank

Unit Description: The unit is located in the plastics processing laboratory. It consists of a below grade limestone sump with a metal cover. The sump measures approximately 48 inches by 30 inches by 30 inches deep. The unit neutralizes contact and non-contact cooling water from the plastic extruding process. Most contact cooling water managed by this tank is recirculated throughout the process. Non-contact cooling water, which is used as secondary water to cool the contact cooling water, is discharged to the sanitary sewer (References 25 and 28).

Date of Start-up: The unit began operations in 1984 (Reference 25).

Date of Closure: The unit was operating at the time of the VSI (Reference 25).

Wastes Managed: The unit manages contact and non-contact cooling water from the plastic extruding process. Potential constituents within the contact cooling water may include: a variety of minerals, acids, bases, alumina, quartz, polypropylene, nylon, acetone, denatured alcohol, cyclohexane, methyl ethyl ketone, fiberglass, borax, zinc oxide, barium carbonate and calcium carbonate (References 24 and 25).

Release Controls: The unit is located indoors (Reference 25).

History of Release: According to facility representatives at the time of the VSI, there have been no releases from this unit (References 24 and 25).

Observations: At the time of the VSI, the unit was closed and it was impossible to observe the integrity of the unit due to its subsurface location (Reference 25).

Unit Name: Dumpsters

Unit Description: This unit consists of two dumpsters located outside the facility buildings. One dumpster (Photograph 1-24) is located adjacent to the loading dock at the Research Building and the second (Photograph 1-25) is located outside the Data Center. The unit located at the loading dock receives general plant trash and paper filters generated within a Spray Paint Booth at the facility. The dumpster outside the Data Center is used to manage general plant trash (Reference 25).

The dumpster at the loading dock measures eight cubic yards (8 yd³) and is situated on an outdoor concrete pad. Runoff from the area of the dumpster is to the parking lot south of the Research Building. The dumpster outside the Data Center measures six cubic yards (6 yd³) and is situated on a concrete pad. Runoff from the area of the 6 yd³ dumpster flows toward a grassy area to the south of the Data Center (Reference 25).

Date of Start-up: It is assumed that general trash has been handled in the dumpsters since facility operations began.

Date of Closure: The units are currently operating.

Wastes Managed: The 8 yd³ dumpster at the loading dock receives general plant trash and paper filters generated within a Paint Spray Booth at the facility. The 6 yd³ dumpster at the Data Center manages general trash (cardboard, paper, etc.) generated at the Technical Center (Reference 25).

Release Controls: Both dumpsters are situated on concrete pads (Reference 25).

History of Release: According to facility representatives at the time of the VSI, there have been no releases from this unit (References 24 and 25).

Observations: Both dumpsters appeared to be in good condition at the time of the VSI. No signs of staining were present in the vicinity of the units.

4.0 DESCRIPTION OF POTENTIAL AREAS OF CONCERN

No potential Areas of Concern (AOCs) were identified at the Ferro Corporation Technical Center facility located in Independence, Ohio, during the VSI or through review of the available file materials.

5.0 CONCLUSIONS AND RECOMMENDATIONS

SWMUs 1A - 1I Laboratory Hazardous Waste Satellite Accumulation Areas

Conclusions: The past and present potential for releases to groundwater, surface water, soil and air from these units is low since the units are located indoors on concrete and/or tile floors and the waste is stored in closed containers.

Recommendations: No further action is recommended for these units.

SWMU 2 Solvent Room Accumulation Area

Conclusions: The past and present potential for releases to groundwater, surface water, soil and air from this unit is low since it is located indoors on concrete and the waste is stored in closed drums.

Recommendations: No further action is recommended for this unit.

SWMU 3 Current Hazardous Waste Container Storage Area

Conclusions: The past and present potential for releases to groundwater, surface water, soil and air from this unit is low since it is located on concrete and the waste is stored in closed drums.

Recommendations: No further action is recommended for this unit.

SWMU 4 Former Hazardous Waste Container Storage Area

Conclusions: The past and present potential for releases to groundwater, surface water, soil and air from this unit cannot be determined because the unit is now six feet below grade and the closure plan used is not currently available for review.

Recommendations: Provide a copy of the closure plan for U.S. EPA review. Sampling may be warranted for this unit based on a review of the closure plan.

SWMU 5 Plastics Staging Area

Conclusions: The past and present potential for releases to groundwater, surface water, soil and air from this unit is low since it is located indoors on concrete and the waste is stored in closed drums.

Recommendations: No further action is recommended for this unit.

SWMU 6 Dust Collector

Conclusions: The past and present potential for releases to groundwater, surface water, and soil from this unit is low because the unit is located indoors and above concrete. The potential for releases to air is low since the dust is captured within a fully-enclosed piece of equipment.

Recommendations: No further action is recommended for this unit.

SWMU 7 Settling Basin

Conclusions: The past and present potential for releases to surface water from this unit is low since wastewater from the unit is discharged to the sanitary sewer, and is subsequently treated at a POTW. The potential for release to soil and groundwater from the unit is unknown because the integrity of the unit could not be confirmed due to its subsurface location. The potential for release to air is low due to the non-volatile nature of the wastes managed.

Recommendations: Because the unit managed hazardous wastes containing heavy metals in the past, the integrity of the unit should be determined. If the integrity of the unit is found to be in question, sampling of the soils beneath the unit is recommended. In addition, the contents of the unit should be sampled to determine if contamination remains inside of the unit.

SWMU 8 Wet Spray Booth

Conclusions: The past and present potential for releases to groundwater, surface water, soil and air from this unit is low because the unit is located indoors on concrete, and it releases to the Settling Basin (SWMU 7).

Recommendations: No further action is recommended for this unit.

SWMU 9**Neutralization Tank**

Conclusions: The past and present potential for releases to soil and groundwater from this unit is unknown since the integrity of the unit could not be determined during the VSI, and the unit managed contact cooling water. The past and present potential for releases to air from this unit is low due to the non-volatile wastewater managed in the unit. The past and present potential for releases to surface water is low since the unit discharges to the sanitary sewer system and is subsequently treated by a POTW.

Recommendations: Because the unit manages contact cooling water from the plastic extruding process, it is recommended that the integrity of the unit be determined. If the integrity of the unit is found to be in question, sampling of the soils beneath the unit is recommended.

SWMU 10**Dumpsters**

Conclusions: The past and present potential for releases to groundwater, surface water, soil and air from this unit is low due to the enclosed nature of the dumpsters and their locations above concrete.

Recommendations: No further action is recommended for this unit.

TABLE 5.1

SWMUs and SUGGESTED FURTHER ACTIONS

SWMU	Operational Dates	Evidence of Releases	Suggested Further Actions
1A-1I	1970 to Present	No	None
2	1984 to Present	No	None
3	1988 to Present	No	None
4	1980 to 1984	No	Provide a copy of the closure plan for U.S. EPA review. Sampling may be warranted for this unit based on a review of the closure plan.
5	1984 to Present	No	None
6	1984 to Present	No	None
7	1984 to Present	No	Integrity testing of the unit is suggested. Sampling to determine whether hazardous constituents remain in the unit.
8	Early 1980s to Present	No	None
9	1984 to Present	No	Integrity testing of the unit is suggested.
10	1970s to Present	No	None

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3. Letter to Lisa Pierard, Chief Ohio Section, U.S. EPA, from Eldridge White, Manager of Corporate Research, Ferro Corporation, Re: Certifying closure of the facility by a registered engineer, March 17, 1989.
4. Letter to Eldridge White, Ferro Corporation, from Lisa Pierard, Chief Ohio Section, U.S. EPA, Re: Response to October 17, 1988 letter - Part A withdrawal, December 15, 1988.
5. Letter to William Muno, Acting Associate division Director, Office of RCRA, U.S. EPA, from Eldridge White, Ferro Corporation, Re: Response to April 22, 1988 letter - Part B Call-In, October 17, 1988.
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7. Waste Minimization Addendum to Generator Biennial or Annual Hazardous Waste Report for 1985, February 26, 1986.
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9. Letter to Dr. Roy Harrington, Vice President, Corporate Director Research, Ferro Corporation, from Thomas Crepeau, Manager, Division of Solid and Hazardous Waste Management (DSHWM), OEPA, Re: Expiration of Ohio Hazardous Waste Installation & Operation Permit (OHWIOP) and change of status to generator only with less than 90 day storage, April 5, 1985.
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15. RCRA Interim Status Inspection Form, January 27, 1984.
16. Letter to David Harrison, Ferro Corporation, from Rodney Beals, Environmental Scientist, DHMM, OEPA, Re: Contingency Plan deficiency response and facility return to general compliance, August 16, 1983.
17. Letter to David Harrison, Ferro Corporation, from Rodney Beals, Environmental Scientist, DHMM, OEPA, Re: Inspection conducted March 17, 1983 and deficiencies identified, April 8, 1983.
18. Letter to David Harrison, Ferro Corporation, from Peggy Vince, Executive Director, Hazardous Waste Facility Approval Board (HWFAB), Re: An administrative error found in the facilities Hazardous Waste Facility Installation and Operation Permit (HWFIOP) 02-18-0219, September 17, 1982.
19. Letter to David Harrison, Ferro Corporation, from Robert Buda, Environmental Scientist, DHMM, OEPA, Re: Inspection conducted July 26, 1982, August 11, 1982.
20. Letter to David Harrison, Ferro Corporation, from Peggy Vince, Executive Director, Hazardous Waste Facility Approval Board (HWFAB), Re: HWFIOP permit, December 8, 1981.
21. Letter to David Harrison, Ferro Corporation, from Paul Flanigan, P.E., DHMM, OEPA, Re: Inspection conducted July 29, 1981 and deficiencies identified, September 9, 1981.

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23. Ferro Technical Center brochure. Undated.
24. Ferro written responses to VSI notification letter questions. October 14, 1992.
25. VSI logbooks. October 14, 1992.
26. Climates of the States, Volume 2, Third Edition, Gale Research Company. 1985.
27. Conversation with Ron Reed of Cleveland Municipal Water Department. November 4, 1992.
28. Conversations with Paul Angus of Ferro Corporation. November 3 - 12, 1992.
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ATTACHMENT A

CORRECTIVE ACTION STABILIZATION
QUESTIONNAIRE

CORRECTIVE ACTION STABILIZATION QUESTIONNAIRE

Completed by:

CARRIE ERICSON

Date:

NOVEMBER 11, 1992

Background Facility Information

Facility Name:

FERRO CORP. TECH. CTR

EPA Identification No.:

OH0 000 817 205

Location (City, State):

INDEPENDENCE, OHIO

Facility Priority Rank:

1. Is this checklist being completed for one solid waste management unit (SWMU), several SWMUs, or the entire facility?

Explain.

ENTIRE FACILITY AS COVERED
IN ATTACHED REPORT

Status of Corrective Action Activities at the Facility

2. What is the current status of HSWA corrective action activities at the facility?

- ☐ No corrective action activities initiated
- ☒ RCRA Facility Assessment (RFA) or equivalent completed
- ☐ RCRA Facility Investigation (RFI) completed
- ☐ Corrective Measures Study (CMS) completed
- ☐ Corrective Measures Implementation (CMI) begun or completed
- ☐ Interim Measures begun or completed

3. If corrective action activities have been initiated, are they being carried out under a permit or an enforcement order?

- ☐ Operating permit
- ☐ Post-closure permit
- ☐ Enforcement order

4. Have interim measures, if required or completed [see Question 2], been successful in preventing the further spread of contamination at the facility?

- ☐ Yes
- ☐ No
- ☒ Uncertain: still underway

CLOSURE PLAN REQUIRED
FOR FORMER HAZARDOUS
WASTE CONTAINER STORAGE
AREA A (SWMU 4).

(A RA/ISI IS CURRENTLY
BEING CONDUCTED)

Facility Releases and Exposure Concerns

5. To what media have contaminant releases from the facility occurred or been suspected of occurring?

- ☐ Ground water
- ☐ Surface water
- ☐ Air
- ☐ Soils

☒ NONE

6. Are contaminant releases migrating off-site?

- ☐ Yes; indicate media, concentrations, and level of certainty.

NO

- ☒ No
☐ Uncertain

7a. Are humans currently being exposed to contaminants released from the facility?

- ☐ Yes
☒ No
☐ Uncertain

7b. Is there a potential for human exposure to the contaminants released from the facility over the next five to 10 years?

- ☐ Yes
☒ No
☐ Uncertain

8a. Are environmental receptors currently being exposed to contaminants released from the facility?

- ☐ Yes
☒ No
☐ Uncertain

8b. Is there a potential that environmental receptors could be exposed to the contaminants released from the facility over the next five to 10 years?

- ☐ Yes
☒ No
☐ Uncertain

Anticipated Final Corrective Measures

9. If already identified or planned, would final corrective measures be able to be implemented in time to adequately address any existing or short-term threat to human health and the environment?

- ☐ Yes
☐ No
☐ Uncertain

Additional explanatory notes:

NONE IDENTIFIED OR PLANNED

10. Could a stabilization initiative at this facility reduce the present or near-term (e.g., less than two years) risks to human health and the environment?

- ☐ Yes
☐ No
☐ Uncertain

Additional explanatory notes:

Stabilization is not required at this facility.

11. If a stabilization activity were not begun, would the threat to human health and the environment significantly increase before final corrective measures could be implemented?

- ☐ Yes
☒ No
☐ Uncertain

Additional explanatory notes:

Technical Ability to Implement Stabilization Activities

12. In what phase does the contaminant exist under ambient site conditions?

☒ DOES NOT EXIST

☐ Solid

☐ Light non-aqueous phase liquids (LNAPLs)

☐ Dense non-aqueous phase liquids (DNAPLs)

☐ Dissolved in ground water or surface water

☐ Gaseous

☐ Other _____

13. Are one or more of the following major chemical groupings of concern at the facility?

☒ NO

☐ Volatile organic compounds (VOCs) and/or semi-volatiles

☐ Polynuclear aromatics (PAHs)

☐ Pesticides

☐ Polychlorinated biphenyls (PCBs) and/or dioxins

☐ Other organics

☐ Inorganics and metals

☐ Explosives

☐ Other _____

14. Are appropriate stabilization technologies available to prevent the further spread of contamination, based on contaminant characteristics and the facility's environmental setting? [See Attachment A for a listing of potential stabilization technologies.]

☐ Yes; Indicate possible course of action.

☒ No; Indicate why stabilization technologies are not appropriate; then go to Question 19.

NOT REQUIRED

15. Has the RFI, or another environmental investigation, provided the site characterization and waste release data needed to design and implement a stabilization activity?

☐ Yes

☐ No

If No, can these data be obtained faster than the data needed to implement the final corrective measures?

☐ Yes

☐ No

Timing and Other Procedural Issues Associated with Stabilization

16. Can stabilization activities be implemented more quickly than the final corrective measures?

☐ Yes

☐ No

☐ Uncertain

Additional explanatory notes:

17. Can stabilization activities be incorporated into the final corrective measures at some point in the future?

☐ Yes

☐ No

☐ Uncertain

Additional explanatory notes:

Conclusion

16. is this facility an appropriate candidate for stabilization activities?

- ☐ Yes
- ☐ No, not feasible
- ☒ No, not required

Explain final decision, using additional sheets if necessary.

SEE RECOMMENDATIONS SECTION
OF ATTACHED REPORT

ATTACHMENT B

VSI SUMMARY, LOGBOOKS AND PHOTOGRAPHIC LOG

ATTACHMENT B

VISUAL SITE INSPECTION SUMMARY
FERRO CORPORATION TECHNICAL CENTER
INDEPENDENCE, OHIO

Date: October 14, 1992

Facility

Representatives: Eldrige White, Ferro Corporation
Paul Angus, Ferro Corporation
David Harrison, Ferro Corporation

Inspection Team: Carrie Ericson, A.T. Kearney
Shereen Shermak, A.T. Kearney
Mark Sattleberg, U.S. EPA

Weather

Conditions: Overcast, approximately 60°F.

Summary of
Activities:

The Visual Site Inspection (VSI) for the Ferro Corporation Technical Center began at 11:45 a.m. A meeting with facility representatives was conducted by the VSI team between approximately 11:55 a.m. and 1:10 p.m. The purpose of the inspection was discussed from a regulatory history standpoint. Subsequently, questions asked of the facility in the VSI Notification Letter were discussed, including site history, past and present facility operations and waste management practices, and Solid Waste Management Units (SWMUs).

At approximately 1:10 p.m., a tour of the facility was conducted to identify and inspect the SWMUs and Areas of Concern (AOCs) previously found during the preliminary assessment of the available file materials, and discussed at the opening meeting. Units inside the building were viewed first. The potential for release of hazardous constituents to the environment was evaluated during the inspection. Photographs were taken by the inspection team with the facility's permission.

An exit meeting was held between approximately 2:30 p.m. and 3:00 p.m. to discuss the facility representative's concerns regarding the visit, and to clarify the PA/VSI process.

- * dust collector specs
- How paint filter disposed
- ceramic sediment → who cleans
- ~~firms dispose of wastes~~
- ~~start date for storage unit~~
- ~~end date for~~
- ~~# of spray booths in place~~



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①

EE 10/14

meeting began @ 11:45

meeting attendants:

Eldridge White - manager corp analytical labs
Paul Angus - Environ. Compliance Specialist
David Hannon - Mgr Adminstrat

overcast and cool $\approx 60^{\circ}$

Swms to strike:

no oil/water separator

Sanitary Water Treatment Systems \Rightarrow sump
collection of solids

many separate labs w/ diff AAs (primarily
solvents), these taken to AA area
in Plasko Room & drummed, when
drums full, then moved outside
to haz waste stage area

liquid nitrogen above ground storage tank
installed 9/92

(2) C²

10/14

large bldg = Techn Ctr
small bldg = Data Ctr

2 no operations prior 1969
natural, wooded area

3 all on registration status, no permits
dust collectors specifications - used to collect
Saw dust, cork
- boiler
- Fume Hoods
- Spray booths
- R+D Facility #2 → add on small part of
large bldg
pilot scale testing & lab work
all dedicated to plastics
for R+D Facility #2 submitted updated list
of equip. to OEPA in 1991, no response
yet

① paint spray booth w/ filter → how dispose
of filters? No know
remaining booths fume hoods

(3) (2)

10/14

1 aerial photo taken many years ago w/
1 bldg on site, couldn't locate

topographical map, only 1 bldg in
place

remainder of facility (eastern 8 acres
has bldgs) western 8 acres is undeveloped
woodland

drainage north toward street + property
slopes toward east
roofs drain + parking lot ^{to} sewers

5) no permits only registration

6)

Process Info

Ferro mfg specialty manfctr plastics,
porcelain enamels added to other
products, make no end-products

facility here corp research ctr concentrate
on LT research, work w/ glass,
plastic pigments, inorganic + organic
research

typical process dev. additives on
hood

larger process compounding of plastics:
take pellets, add pigments + →

(4) CC

10/14

recompound into higher level plastic
& reformulate into bars 1

do do sample analysis of products
for defects for other facilities

no QA work in general

typical run of plastics made for test
≈ 500 lbs of pellets

majority work in plastics, in past
was glass change occur ≈ 1980

this justifies addit bldg 1983-4
to allow space for plastic equip.

small amount work specialty materials
(see brochure)

vitricat of haz waste done too, but
not on site, then fusing waste
into glass all work done @ other
facilities

vi Area

8) attached to sewer lines

Sump pump in shipping area to collect
water, discharged to parking lot
storm water

any drain from lab area in iron and
pipe

⑨ CE

10/14

limestone sump installed \rightarrow cooling water from extruders goes through this plastic contact

chemical lines get cooling water from extruders + lab sinks \rightarrow w/in bldg outside of bldg get sanitary waste

acid dew tank is a sump

settling basin (sediment trap) - ceramic materials for clean-up of ball mill grinding from screens, settling basin used to keep from sewers. periodically cleaned out + disposed of; last time cleaned 1990

10) no septic tanks

12) non-halogenated solvents from labs

halogenated " " "

waste oil from extruders, hydraulic presses

haz. solid waste from settling basin + plastic staging area (pellets, pigments powders) generally haz. due to metal content (borax) in past lead, cadmium, now not much

solvents - mixed chemicals

(6) CE

10/14

solvents used for cleaning @ and analytical purposes

heating oils on extruders

hydraulic oil on presses

lawn mower → motor oil

no PCBs oils on site

transformers on site, surveyed by local PWR Co. several yrs ago ± 10 determine contain no PCBs
all other transformers dry

no monitoring wells

not appear in records that was a closure plan.

1/31/84 w/ draw status as TSD

8/14/84 ^{EPA adms} permit to expire & enclose Part B app

9/24/84 Facility adms no longer use & generator status only

12/14/84 OEPA inspects request certificate of closure

unit closed between Jan Sept 1984

(9) CE

10/14

4/8/87 OCEPA indicates closed unit

4/22/88 US EPA request withdraw Part A or Part B

10/17/88 facility advised withdrew Part A in 1984
refer to OCEPA 1987 letter

12/15/88 VS request certificate closure

3/8/89 engineers certification
submit to Lisa Pierard

original site 12 x 20 area on asphalt base
between 2 sheds 1983-84 sheds torn
down + whole area paved over

no other units currently undergoing
closure

16) ~~never~~ never dumped waste chemicals
to land here (ref #1)

(8) CE

10/14

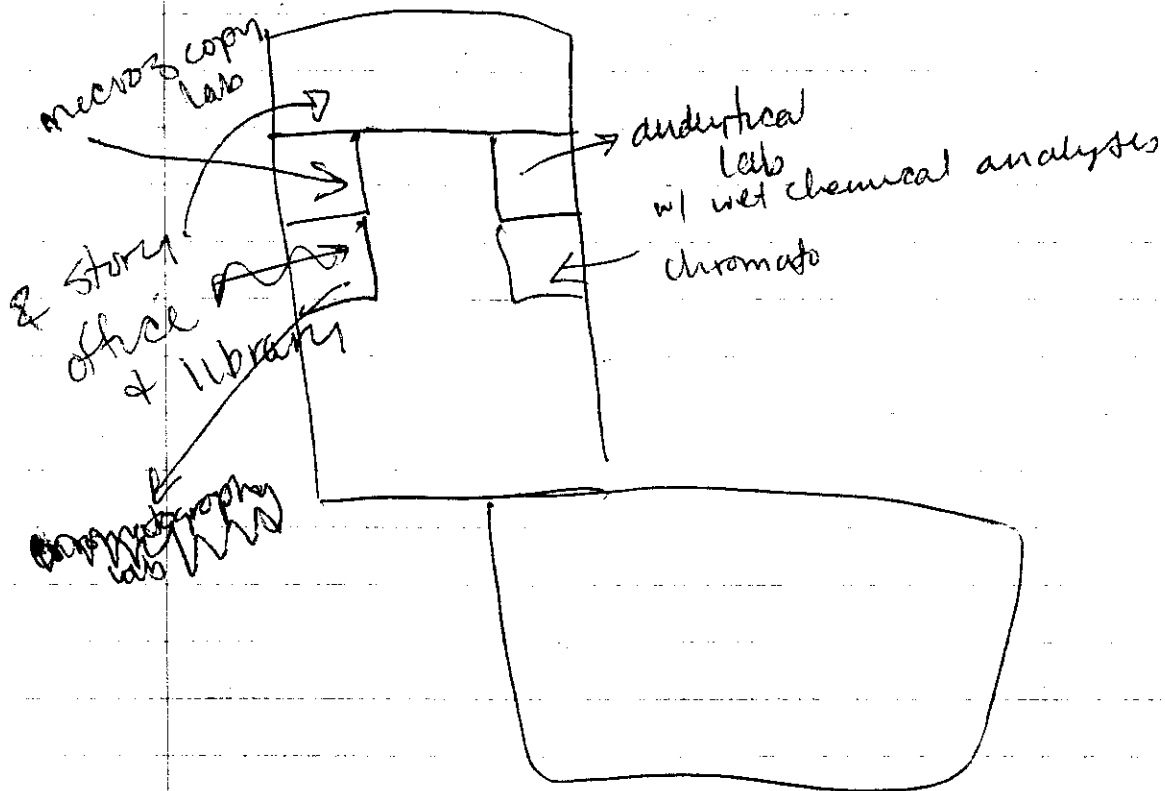
Inspect^o for begin 1:10

Photo

Direct^o

Unit

Inorganic
Analytical chemistry lab test characterizat^o
of materials from division or researches on
site milligrams → grams



1-1

AA waste solvents in wet chemical analy
lab, just 2 bottles labeled +
active samples
w/ fume hood 1970 began

(9) CE
10/14

no waste radiatⁿ; de facto XRAY

lab sink for personal clean-up

microscopy lab → optical microscopes
characterizatⁿ of research + productⁿ
materials; electron microscopes, photo
lab

1-2 haz waste solvent stored in
microscopy lab w/ fume hood
1970 began

Chromatography lab → separate of materials
used characterize material, sep. liquid
& gaseous matls. to individual
generate waste solvents accum in
hoods

1-3 haz waste solvent stored in
chromatography lab
1984-5 lab began

1-4 Gel permeation Chromatograph req.
liquid media flow continuous thru
5215.

virgin solvent run thru & Accumulated
here in chromo lab 1984-5
changed every 2-3 days

(10) CE

10/14

1-5

Gell permeatⁿ chromatograph too
→ go to solvent storage accum area

1-6

SAA area for waste labs in
chromo lab under hood, solvent
halogen / non-halogen material

analytical lab 1st part press room
no haz waste gen

1-7

Spray booth for painting plastic
operatⁿ since 1970 ~~via~~ w/ previous
lab. activities

2nd part spectroscopy, infrared
testing used to characterize mats.

1-8

Solvent accum area in analytical
lab under hood

1-9

non-chlorinated solvent container
for accum solvents in
analytical lab (no hood)

NMR nuclear magnetic resonance
spectroscopy to charac. mats.

1-10

SAA area in NMR lab
1984 began

(11) RE
10/14

polymer modification lab 1984
before ~~plastics~~ ceramics lab since 1970
synthesize or formulate polymers
experimental

lab sinks for personal

1-11 haz SAA in polymer lab
on floor

1-12 haz SAA in polymer lab
on floor

liquid color lab → no haz wastes
generated / stored

electronic materials lab → research lab
large qty of liquid nitrogen from
furnaces here

no haz waste

extension of electronic mat lab
no haz waste

(12) EE
10/14

Thick film processing lab

1-13 Storage haz waste in ↑ 1985
originally fiber glass research
labs, not done any more

inorganic synthesis lab
no haz waste

mixing room + furnace room
↓
w/ settling basin

1-14 settling basin
grind balled product to slurry, place
over series of screens
ceramic settle down & exits to
sewer $\approx 20'$ deep $20' \times 33'$ size
concrete $8' \times 8'$

1-15 Wet spray booth in mixing room
not used as spray booth anymore
used for clean out booth now
cease as spray booth in early 80's

(15) (16)
10/17

Furnace Room used for melting
glass to glass take material
goes to mixing room for
grinding to ~~for~~ make slurry

Reactor Area no haz sludges
generated from washing stored here
if have waste, drum brought here
it filled & brought back to
storage area in ~~mixing room~~ sludges
storage area

now move to addition

Shop

1-16 Dust collector in Shop for
+ Sawdust & metal shavings goes to
1-17 dust collector & disposed in
dumpster periodically, inspected 1x month
for filled material disposed of in
general trash dumpster
1984 installed

Plastic Processing Lab, extruders,
inject molding, dryers etc

no haz waste accum

(14) CE
10/14

waste oils generated ^{CE} ~~hear~~ here

117 ^{CE}
1-18

limestone pit/sump installed to
clean cooling water (neutralizes
H₂O) majority non-contact cooling
contact water from extruder trough

no waste oils stored in here

injection molding room

Scrap ~~to~~ plastic to domestic refuse

CE
1-18
1-19

Plastic solid staging areas
Storage in drums of floor sweepings,
clamps, maintenance store
area
1984 began

Plastic Testing Area 2nd floor
above molding processing room
no haz waste accum area
Spent Samples in general
facility refuse

weatherometer lab

w/ large ovens for temp. testing +
reproduce environ cond'ts
no haz mats

(15) CE
10/14

1989 Annex offices built
previously, composites lab

Clean Room = Annex lab

tape casting areas

slurry pumped onto stainless steel belt
squeegee to film + dry → tape
used for base to print electronic
circuit

1-19 solvent storage area in clean room
1-20 for chlorinated & non-chlorinated
chw waste solvents

Shipping & receiving area

1-20 grated covered sump to storm sewer
1-21 @ loading dock approx. 1' x 20'
chw + 3' deep 1984 built

Solvent Storage area off of loading
dock for raw mat & haz waste
Storage

1-21 5 active drums stored closed for haz
1-22 mat storage 1984 began
chw reinforced walls + ceilings w/
seal btwn wall & floor
explosive proof room w/ exhaust

(16) C2
10/14

vent to roof

- N 1-22 Haz waste contain storage pad
1-23 in fenced area on concrete minimal
C2 staining / cracks, on pallet no
secondary contain beans
adjacent to loading dock
- 1-24 C2
1-23 8 yd³ dumpster by loading dock
- E 1-25 C2
1-24 6 yd³ by data center
- W 1-26 C2
1-25 area of "closed" container
storage area, since paved over
w/ asphalt
drums stored on asphalt @ time
began 1980 - 1984
- 1-27 C2
1-26 pump for stormwater collected
in grated loading dock area

BSI conducted 2:30

Closet meeting

meeting ended 2:50

Trashed tires
for waste disposal (manifests)
-- Spraybooth locations

①

Arrive onsite 11:45 a.m.

10/14

Ferry:

David Harrison
Edridge White
Paul Angus

EPA -

Mark Sattelburg

ATC -

Carrie Ericson
Jason Stenseth

Opening Mtg. -

Person indicated what we will be
allowed to see.

SWMU list -

① No oil/water sep.

[SATA's]

② Sanitary treatment system -

Settling basin - solids
collection

2

10/14

- NEEDS?
- where are spray booth filters disposed?

SWMU list

- Drum storage areas
- Lab waste AA's
 - little bottles of solvent waste
- Solvent room - 55 gal drums
- Haz Waste Storage Pool
- Plastics Storage - 55 gal drums
- Dust collector
- Spray booth filters (disposal)
AA's?
- stormwater blind sump in shipping area
- chemical lines - cooling water from extruders
- lab sink lines
- ODS

discharged into
stormwater

(5)

10/14

Air Control permits

2 apps -

- 1 for annex
- 1 for fumehoods, etc. in old bldg

East e acres - developed

- Surface water ^{GW} goes to N. Slopes to E. VACS to SW

- NO NEURSD -

both east & west regional sewer districts

Process Description

Ferro negs specialty mat'ls.
Ferro - plastics, chemical additives, etc.
- research (long-term) here
- glass
- engineering & payments
- developing additives

(6) (1)

- compounding of plastics
plastic pellets
add pigments or stabilizers
- compound into new pellets
- make test specimens
for research
- 500 lb. batches (most 2000 lb.)
- focus on plastics now, glass in the
past
(83-84 expansion - for plastics
equipment)
- loading dock
- no haz. waste at site

Settling Basin

- Ball mill grinding of glass/ceramics
- Cleanup of ball mill
 - sediment goes to sewer
 - heavy ceramics
cleaned out
 - disposed of as
haz waste
- cleaned out in 1990 last

(9)

Onsite wastes:

- Non-halogenated solvents
- Halogenated solvents
 labs
- Waste oil - from extractors & hydraulic presses
- Ceramic sludge, etc.
- Metals
- Plastics / pellets
 boron
- Lead, cadmium - battery
- Heating oils - heat transfer - extractors
- Hydraulic oils - presses
- no PCB oils in transformers
- no closure plan for container storage

(11)

Closure:

10/14

- Aug 84 - Part B Call-in
- facility requested "Generator only" status
- 12/84 - OSHA inspection
no waste onsite
SGG
requested closure certification
- April 88 - Part B Call-in ~~again~~
 - responded - OSHA thinks they're closed
 - hired P.E. to certify
 - March 8 - eng. certification
- Closest water is Coyahogo River

State Tour 1/16

(13) Mark of
Approx. Jackson

Inorganic
1st Analytical Lab - chemical
characteriz.

- small quantities (mg)
+ wet chemical analysis

~~AA~~ fume hood w/ bottles → vacuum
solvents:

Chloroform
2 1-gallon glass
bottles

tile floor
here since '70

Microscopy

~~AA~~ 2 small quart plastic
bottles - under fume hood
here since '70

Chromatography

~~AA~~ mod'l characterization

1 gallon glass jar
here since 84-85

(66)

~~13~~ Chromatography 2 GC's
To run GC

→ bottle hooked up to
Michell (1 gal glass)
2 or 3 days to change out

~~11~~ Chromatography lab

Another fine hood
Another bottle
very at hand, non-

~~13~~ Analytical Press Room

~~20~~ ~~the waste press~~

→ spray booth - paint

Another fine hood

2-jars

1-PUV gel non-dlar

Also 5-gal drum stored closed
on floor - non-chlor.

(17)

NMR Lab - 1984

~~AA~~
Another fume hood
Another jar
non-donor solvents
NMR

Polymer Modification - 1984
was ceramics

Synthetic experimental
formulations

~~AA~~
2 + 3 - gallon H₂O-AA
under sink

~~AA~~
2 glass bottles
1 PVC bottle
1 3-gal steel container

(19)
Liquid Color Lab
was a ceramics lab
no waste

Electronic Mail's

research lab -
tied into liquid N
tank

furnaces - fire samples
ceramics
NOMASTE VSIMS

Thick Film Processing - 1985

orig. Fiberglass (structural)

Printing electronic circuits

3-rod steel jet
w/ sulfur a high breath

Inorganic Synthesis

- did not go in
due to processing

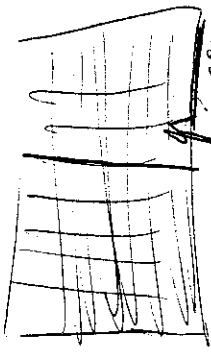
(2)

Mixing Room

6 ft

Sump - settling basin
10' x 10'

ground milled
ceramics



screen
collects
unground

sludge
exit

concrete
26\"/>

Sludge is scooped 8' x 8' ss

Also

ss
settling

lock spray booth
spray porcelain enamel
use to clean out screens



gate discharges to sump

← sump

(12)

Furnace Room

3 furnaces
- arctic glass

glass is ground up
w/ water

there is a teacher area
next to furnace
no hot mat stored
generates some cleaning
effluents → use tank
to collect & store in solvent
storage area

four moves to add-on bldg 2pm

(2)

Shop Room

Dust collector → pickups
Sawdust, metal shavings
4" Ø PVC pick-ups
steel pipes to roof

collect dust
goes to dumpster
inspected 1/mo
for cleanup

here since 1984

Plastic Processing Lab

- Extruders
- Injection molds
- Dryers

No waste
Acc.

waste oil generation
intermittent
→ gear boxes
→ pump

Limestone Slump - recovers cooling water
content is non-

(2)

- Generate
- Contact cooling water
 - Extruded plastic
 - Plastic goes through dryer

Press oil, other oils
changed out periodically
maintenance

* Beam behind extruder

→ injection molding
of plastic
Scrap goes to domestic refuse

Bin

Plastics storage area drum
PVC drum

floor sweepings,
maintenance

1984

(4)

Plastics Testing

- Over molded parts are
- physical tests
- stress & strain

plastic samples go out
as domestic fridge

Also: ovens to produce
environmental testing

1989 Annex Offices
& Annex Lab

was: Composites Lab
research on composite materials
- decided not to do graphite

next to it - tape casting
still made in lab until
is baked more
squeezed till flat
creates structural tape
used to make substrates for
electronic circuits

(15)

2 drums in top area
2-3 gal drums
1 - chlorinated
1 - non-chlor.
concrete floor
no cables

Downstairs Pump inside building
Shipping dock sump -

Unloading area slopes to
sump → concrete base

@ or 10 feet deep ⁵⁵ below
ground surface

~2 feet deep installed 1994
20' long x 18" wide
metal grate

Sevent Street Area
Some raw material drums
5 waste drums
rusted tops

(17)

Indoor Storage Area
10' x 15' room concrete floor
concrete/cement
block walls
explosion proof roof
exhaust vents to
atmosphere

Outdoor Storage Area
For Waste Storage
1 $\frac{55}{\text{g}}$ - drums of hazardous waste
stored on pallets

- concrete base
- fenced in
- no dike

9 empty drums stored \rightarrow reused for waste

(4)

8yd³ dumpster

Steel - on concrete
next to parking area

Data Center = Offices

6 yd³ dumpster

same
next to 1st Gr.

Former Storage Area

asphalt over asphalt

entire area is 6' below grade

2:40 class out meeting

Facility asked how to get
copy of report

10/14

250 left site

(5)

PHOTOGRAPHIC LOG

All photographs taken inside the various portions of the facility building and laboratories have been identified with the direction of INDOORS. The locations of the various SWMUs are listed in Table 3.1.

Preliminary Information

1. There are no past or present above ground or underground waste storage tanks at the facility.

Hazardous waste is transferred from generation points in the various laboratories to 55 gallon drums in the Solvent Storage room. An accumulation area also exists in the Plastics Staging area for solid hazardous waste generated in the area. Full drums are transferred from the Solvent room and Plastics Staging Area to the Hazardous Waste Storage Area. (For a description of wastes see attachment E)

Full drums of hazardous waste are loaded directly from the storage area to the transporter's vehicles for delivery to receiving facilities.

Two trash dumpsters are also on site for solid non-hazardous paper and plastic wastes.

See site map (attachment A) for locations of all Solid Waste Management Units (SWMU's) and locations of sumps.

2. Ferro purchased the current 16 acre site from R. Copelin, S. Copelin, S. Cohen, and A. Cohen in 1969. The land was an undeveloped, forested area at the time of purchase. The original Technical Center laboratories and offices were constructed in 1970. The Data Center was constructed in 1978. An addition was made to the south portion of the Technical Center in 1984.
3. All emission sources are on Registration status. See attachment B for a list of air emission points and copies of notices of registration. The only air pollution control device at the facility is a Torit dust collector utilized in the maintenance shop for sawdust collection.
4. See site maps and topographic maps.
5. See attachment B.
6. Not applicable. No past or present underground storage tanks at the facility.
7. See brochure (attachment C) for a description of facility activities.
8. See Northeast Ohio Regional Sewer District Wastewater Questionnaire. (attachment D)

Visual Site Inspection, Ferro Technical Center
October 14, 1992

9. See attachment D and site map.
10. Not applicable. No septic tanks at the facility.
11. Not applicable. Not a manufacturing facility.
12. See attachment E.
13. Not applicable. No remedial work or monitoring has occurred at the facility.
14. Not applicable. No wells exist at the facility.
15. See attachment F.
16. No spills/releases at the facility.
17. Current Solid Waste Management Units (SWMU's)

1) Hazardous Waste Storage Area

Date unit began operating: October, 1988
Dimensions: 32' x 50'
Location: refer to site map
Description of wastes: halogenated solvents
 non-halogenated solvents
 waste oil
 solid metal bearing waste
Sources: laboratory operations
Unit function: storage of waste and used equipment
Material of construction: concrete
Release controls: spill control stations
History of releases: none
Analytical: none

2) Solvent Room

Date unit began operating: 1984
Dimensions: 12' x 20'
Location: refer to site map
Description of wastes: solvent wastes
Sources: laboratory operations
Unit function: storage of solvent and solvent wastes
Material of construction: concrete floor
Release controls: spill control stations
History of releases: none
Analytical: none

Visual Site Inspection, Ferro Technical Center
October 14, 1992

17. (cont'd)

3) Sediment sump

Date unit began operating: 1984
Dimensions: 20" x 20" x 33"
Location: refer to site map
Description of wastes: Inorganic sludge
Sources: Laboratory mixing/ milling
Unit function: sedimentation sump for wastewater prior
to discharge to sanitary sewer
Material of construction: concrete
Release control: n/a
History of releases: n/a
Analytical: n/a

18. Hauler: Arco Disposal Inc.

Description of waste: office paper, plastic, cardboard,
domestic waste, etc.

Containers: 1 - 8 cubic yard dumpster

1 - 6 cubic yard dumpster *data center*

Frequency of pickups: 8 yd. - 2x per week

6 yd. - 1x per week

19. Facility is not in 100 year floodplain.



Photo No. 1-1

Date: 10/14/92

Direction: Indoors

Description: View of the Inorganic Laboratory Hazardous Waste Satellite Accumulation Area (SWMU 1A) consisting of a single one-gallon glass jug on a table within the fume hood.



Photo No. 1-2
Date: 10/14/92

Direction: Indoors

Description: View of the Microscopy Laboratory Hazardous Waste Satellite Accumulation Area (SWMU 1B) consisting of a single one-gallon plastic jug on a table within the fume hood.

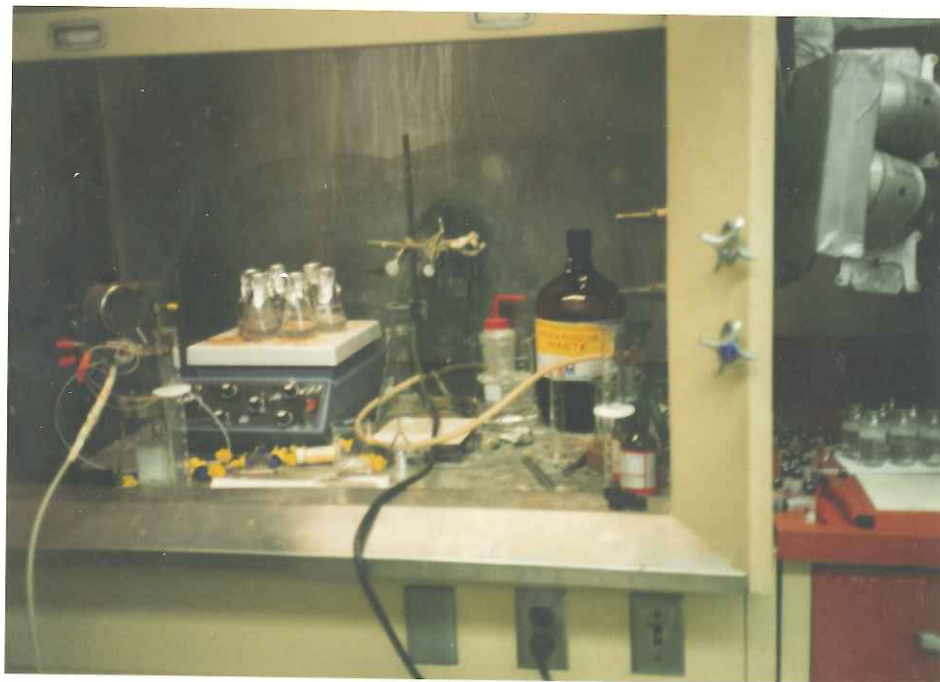


Photo No. 1-3
Date: 10/14/92

Direction: Indoors

Description: View of the Chromatography Laboratory
Hazardous Waste Satellite Accumulation Area
(SWMU 1C) consisting of a single one-gallon
glass jug on a table within the fume hood.



Photo No. 1-4
Date: 10/14/92

Direction: Indoors

Description: View of the Chromatography Laboratory
Hazardous Waste Satellite Accumulation Area
(SWMU 1D) consisting of a single one-gallon
glass jug placed in a white bucket located in
a cabinet. This jug collects the waste liquid
solvent after it has flowed through the gel
permeation chromatograph.

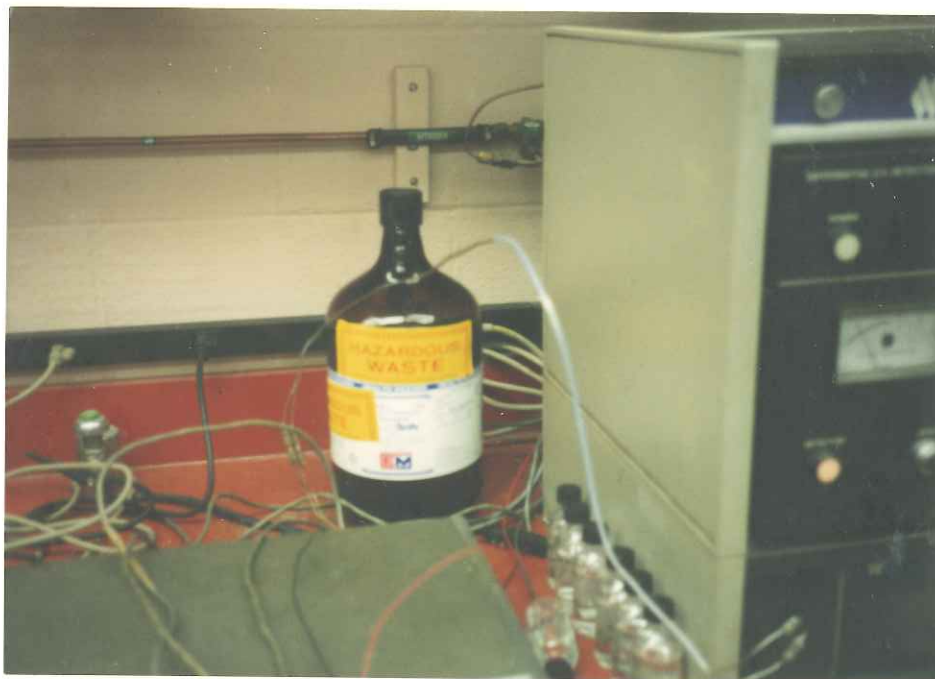


Photo No. 1-5
Date: 10/14/92

Direction: Indoors

Description: View of the Chromatography Laboratory Hazardous Waste Satellite Accumulation Area (SWMU 1D) consisting of a single one-gallon glass jug located on a table top. This jug collects the waste liquid solvent after it has flowed through the gel permeation chromatograph.



Photo No. 1-6
Date: 10/14/92

Direction: Indoors

Description: View of the Chromatography Laboratory
Hazardous Waste Satellite Accumulation Area
(SWMU 1C) consisting of a single one-gallon
glass jug located on a table top within a fume
hood.



Photo No. 1-7
Date: 10/14/92

Direction: Indoors

Description: View of the spray booth located in the Analytical Laboratory Press Room. The booth is used for painting plastics.



Photo No. 1-8
Date: 10/14/92

Direction: Indoors

Description: View of the Analytical Laboratory Hazardous Waste Satellite Accumulation Area (SWMU 1E) consisting of two one-gallon glass jugs and a single one-gallon plastic jug located on a table top within a fume hood.



Photo No. 1-9
Date: 10/14/92

Direction: Indoors

Description: View of the Analytical Laboratory Hazardous Waste Satellite Accumulation Area (SWMU 1E) consisting of one two-gallon container located on the floor.

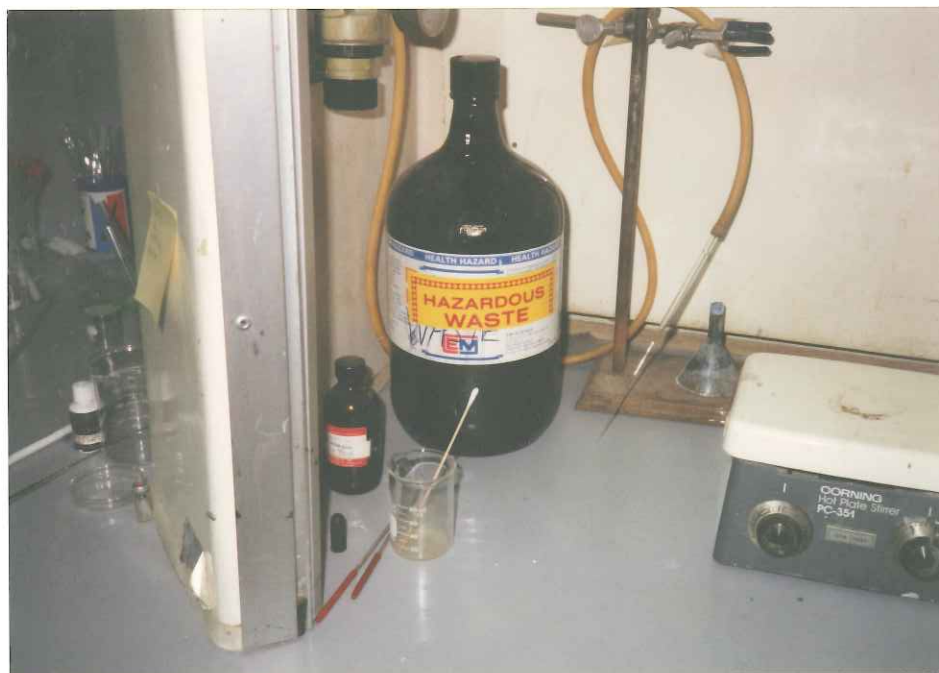


Photo No. 1-10
Date: 10/14/92

Direction: Indoors

Description: View of the Nuclear Magnetic Resonance Laboratory Hazardous Waste Satellite Accumulation Area (SWMU 1F) consisting of a single one-gallon glass jug located on a table top within a fume hood.



Photo No. 1-11
Date: 10/14/92

Direction: Indoors

Description: View of the Polymer Modification Laboratory Hazardous Waste Satellite Accumulation Area (SWMU 1G) consisting of two 2-gallon containers located on the floor.



Photo No. 1-12
Date: 10/14/92

Direction: Indoors

Description: View of the Polymer Modification Laboratory Hazardous Waste Satellite Accumulation Area (SWMU 1G) consisting of one two-gallon container and two one-gallon glass jugs located on the floor.

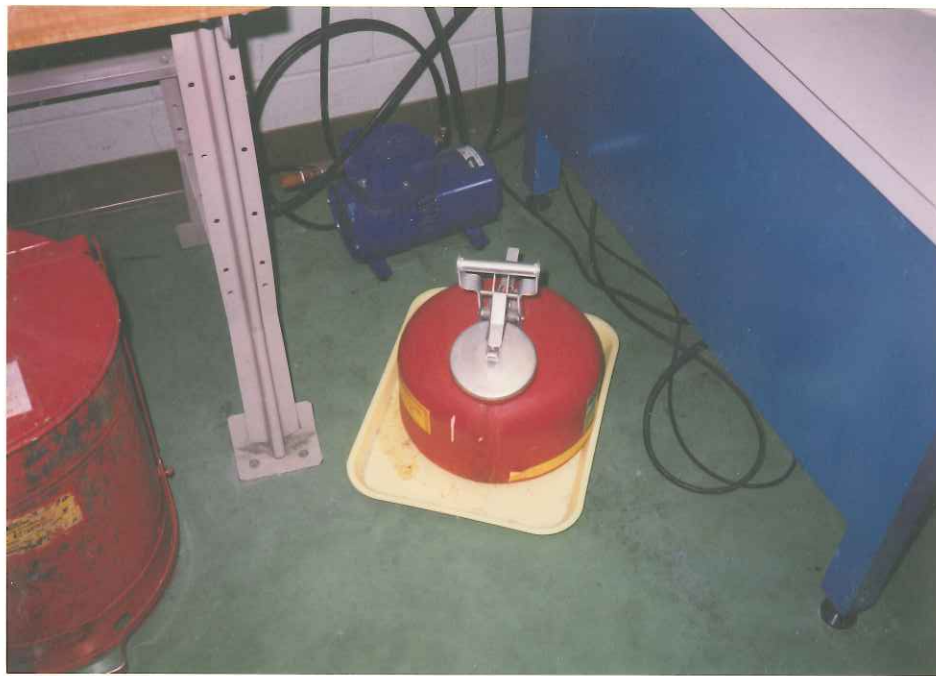


Photo No. 1-13
Date: 10/14/92

Direction: Indoors

Description: View of the Thick Film Processing Laboratory
Hazardous Waste Satellite Accumulation Area
(SWMU 1H) consisting of one two-gallon
container located on the floor positioned on a
plastic tray.

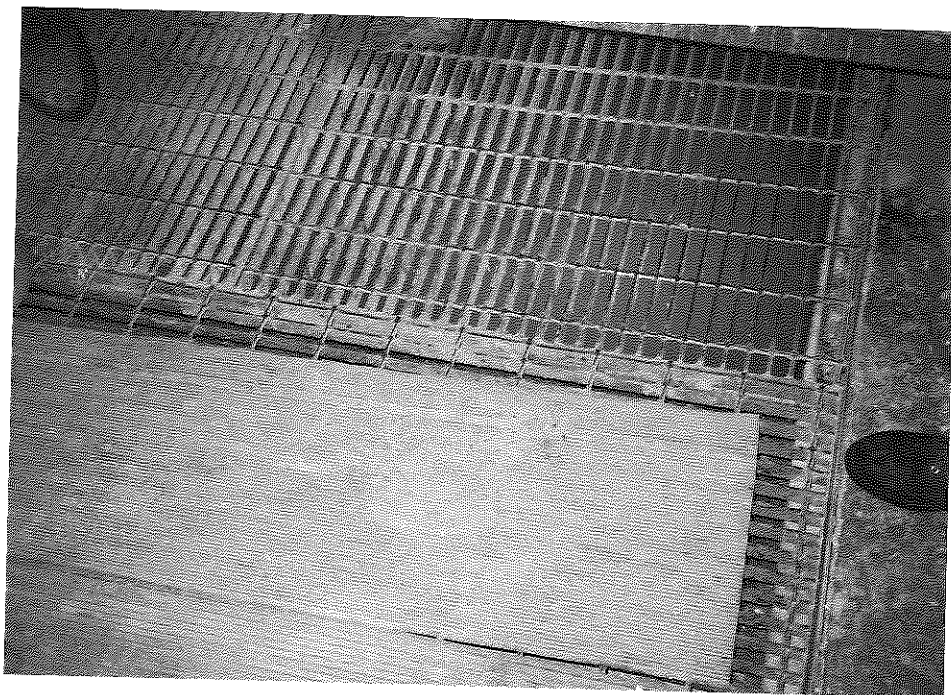


Photo No. 1-14
Date: 10/14/92

Direction: Indoors

Description: View of the Settling Basin (SWMU 7) covered with a grate and floor mats. Dried ceramic slurry material covered the grating and surrounding floor area.



Photo No. 1-15
Date: 10/14/92

Direction: Indoors

Description: View of the Wet Spray Booth (SWMU 8)
containing dried ceramic slurry material on
the grating and sides of the unit.



Photo No. 1-16
Date: 10/14/92

Direction: Indoors

Description: View of the Dust Collector (SWMU 6) located on a table with no visible dust in the area.



Photo No. 1-17
Date: 10/14/92

Direction: Indoors

Description: View of the Dust Collector (SWMU 6) hose nozzle.



Photo No. 1-18
Date: 10/14/92

Direction: Indoors

Description: View of the Neutralization Tank (SWMU 9)
closed and covered with dried, plastic dust
material.



Photo No. 1-19
Date: 10/14/92

Direction: Indoors

Description: View of the Plastics Staging Area (SWMU 5) consisting of large plastic drums. Note the drum marked "hazardous waste."



Photo No. 1-20
Date: 10/14/92

Direction: Indoors

Description: View of the Clean Room Laboratory Hazardous Waste Satellite Accumulation Area (SWMU 1I) consisting of two 2-gallon containers located on small drums on the floor.



Photo No: 1-21
Date: 10/14/92

Direction: N

Description: View of the sump for stormwater collection at the loading dock area. The grate was damp and covered with a metal grating.



Photo No: 1-22

Date: 10/14/92

Direction: Indoors

Description: View of the Solvent Room Accumulation Area (SWMU 2) containing four 55-gallon steel drums. The drums were closed with rusted tops.



Photo No: 1-23
Date: 10/14/92

Direction: S

Description: View of the Current Hazardous Waste Container Storage Area (SWMU 3) containing one 55-gallon steel drum. The drum was closed with a rusted top.



Photo No: 1-24
Date: 10/14/92

Direction: N

Description: View of the eight-cubic-yard Dumpster (SWMU 10) located at the Research Building loading dock.



Photo No: 1-25
Date: 10/14/92

Direction: E

Description: View of the six-cubic-yard Dumpster (SWMU 10)
for general office refuse located at the Data
Center loading dock.



Photo No: 1-26
Date: 10/14/92

Direction: W

Description: View of the location of the Former Hazardous Waste Container Storage Area (SWMU 4). The exact location of the former unit is currently six feet below grade.



Photo No: 1-27
Date: 10/14/92

Direction: Indoors

Description: View of the pump used to remove collected stormwater from the loading dock sump. The collected stormwater is discharged to the stormwater sewer system.